3.7.3.2 Parts list

Table 3.7.3.2.1-1 Parts List for High Speed Upgrade Kit

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-5E	Disk Adapter PCB	1504067-A	2	
		Nameplate	3244906-1	1	

3.7.3.3 Installation Procedure of High Speed Upgrade Kit

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

1. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.3.3-1) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

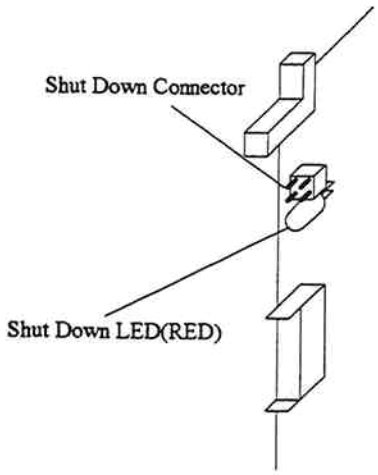


Fig. 3.7.3.3-1 Shut Down LED

2. Removal of the PCBs
   a. Unfasten the buttons to open the cable cover.
   b. Remove the SCSI Interface Cables referring to Fig. 3.7.3.3-2.
   c. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.7.3.3-1 and Fig. 3.7.3.3-2.

Table 3.7.3.3-1 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB	G	DKA-1G	Basic Location(CL1)

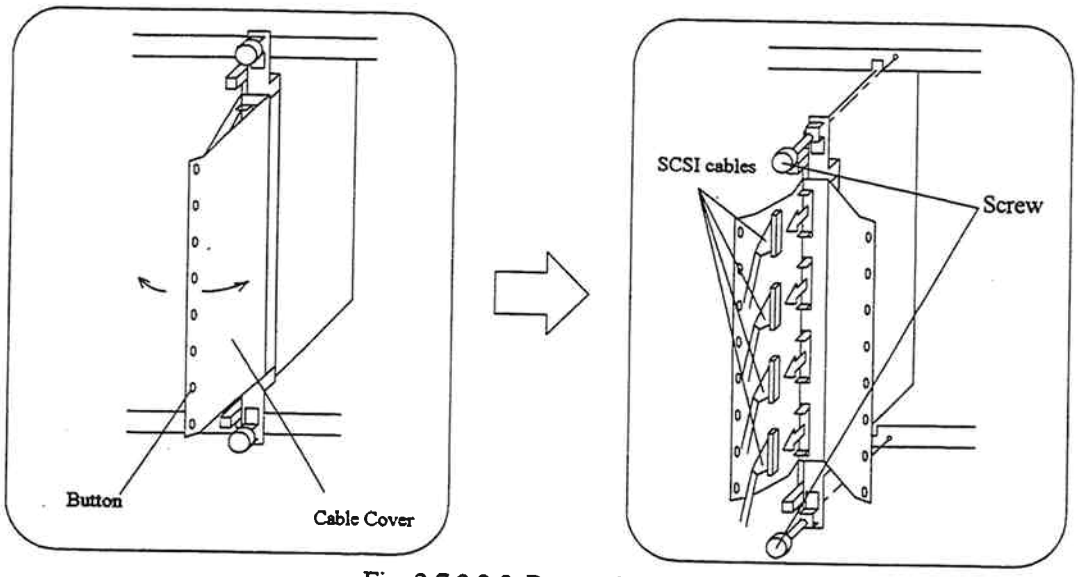


Fig. 3.7.3.3-2 Removal of PCB

3. Transfer of RAID 5 Booster
   a. Remove the RAID 5 Booster from the removed PCB, and attach the RAID 5 Booster to the new PCB(High Speed).

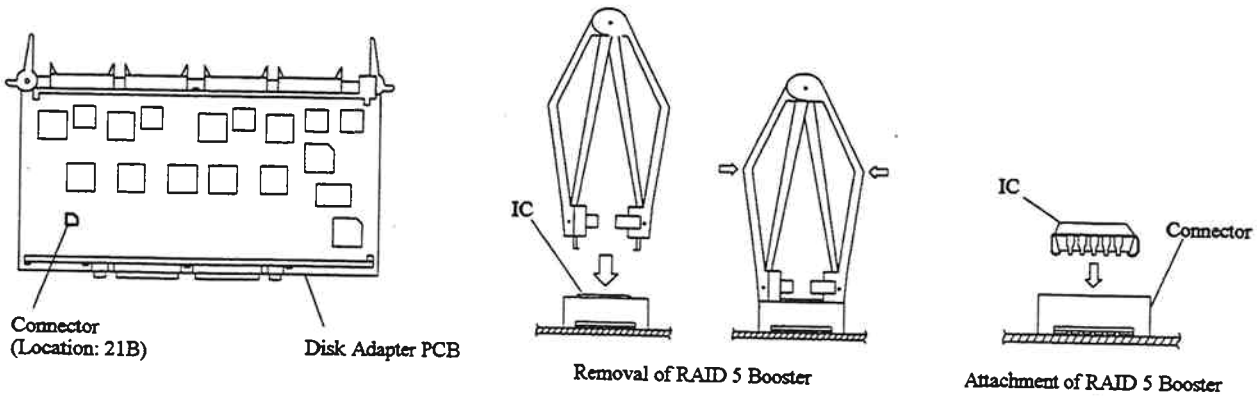


Fig. 3.7.3.3-3 Transfer of RAID 5 Booster

4. Transfer of the cable cover
   a. Remove the cable cover from the removed PCB, and attach the cable to the new PCB(High Speed).

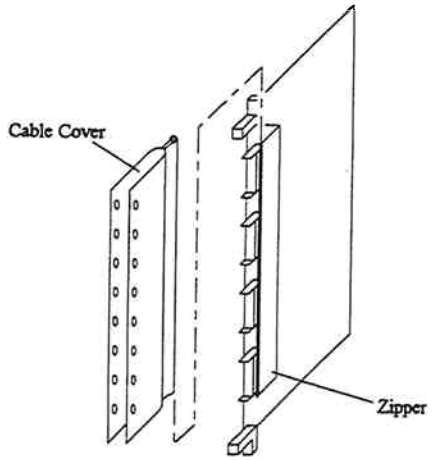


Fig. 3.7.3.3-4 Transfer of Cable Cover

5. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.7.3.3-2 and Fig. 3.7.3.3-5.
   b. Connect the SCSI Interface Cables referring to Fig. 3.7.3.3-5.
   c. Button up the cable cover.

Table 3.7.3.3-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB(High Speed)	G	DKA-1G	Basic Location(CL1)

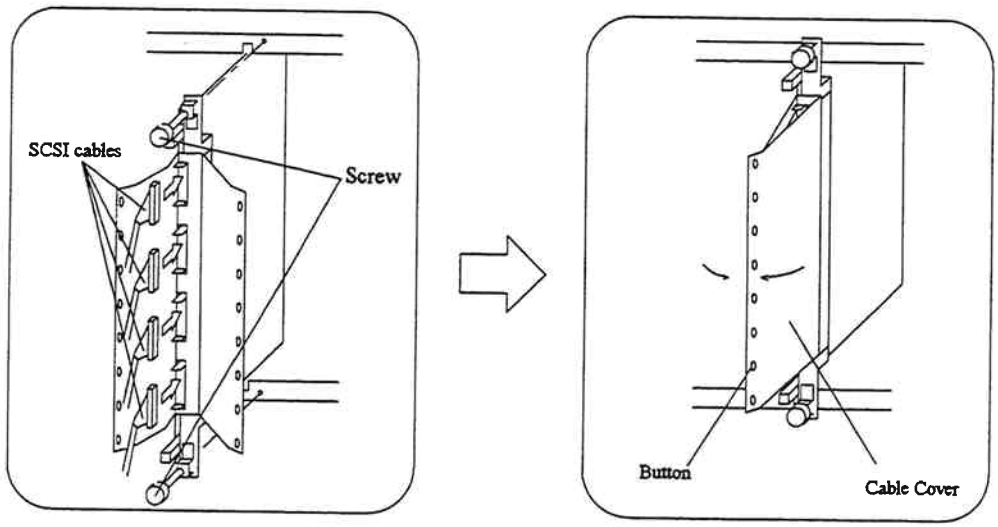


Fig. 3.7.3.3-5 Insertion of PCB

6. SVP Procedure
   Go to INST07-10 Step(3).

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

7. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.3.3-6) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

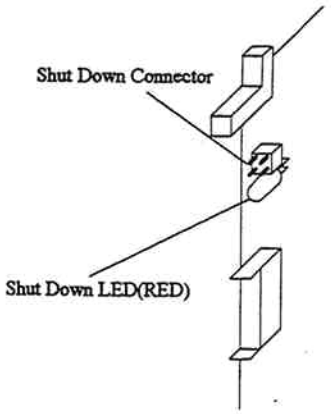


Fig. 3.7.3.3-6 Shut Down LED

8. Removal of the PCBs
   a. Remove the SCSI Interface Cables referring to Fig. 3.7.3.3-7.
   b. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.7.3.3-3 and Fig. 3.7.3.3-7.

Table 3.7.3.3-3 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB	L	DKA-2L	Basic Location(CL2)

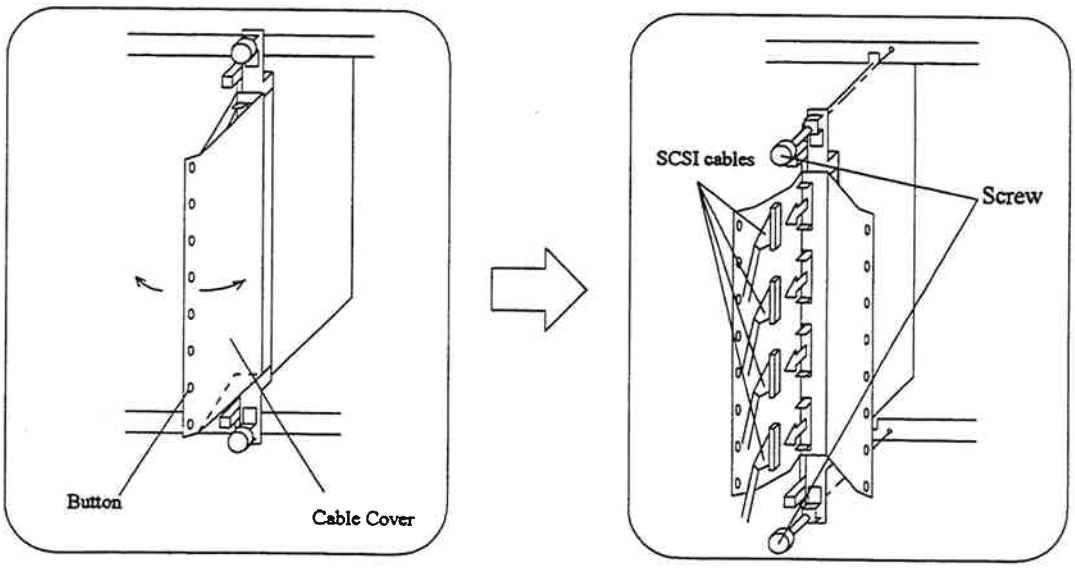


Fig. 3.7.3.3-7 Removal of PCB

9. Transfer of RAID 5 Booster

   a. Remove the RAID 5 Booster from the removed PCB, and attach the RAID 5 Booster to the new PCB(High Speed).

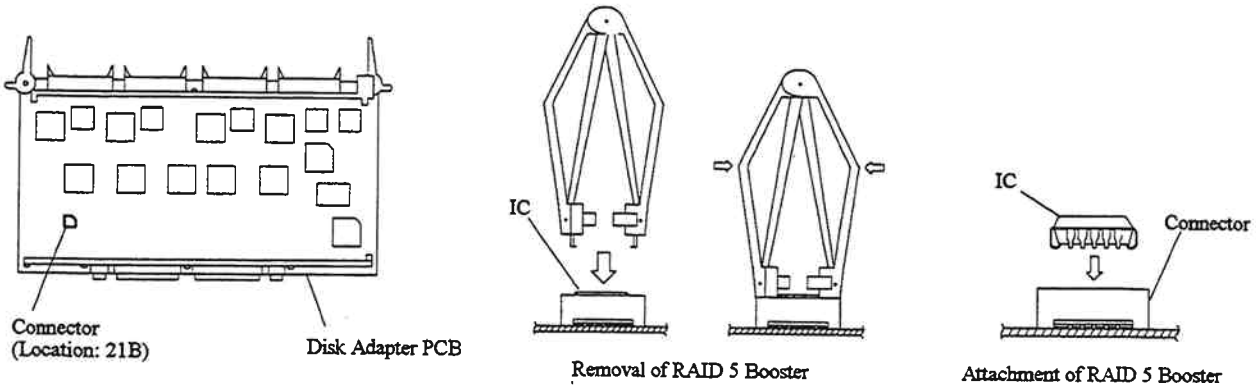


Fig. 3.7.3.3-8 Transfer of RAID 5 Booster

10. Transfer of the cable cover

   a. Remove the cable cover from the removed PCB, and attach the cable to the new PCB(High Speed).

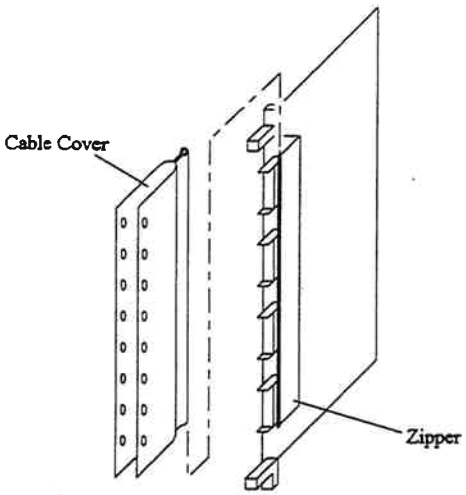


Fig. 3.7.3.3-9 Transfer of Cable Cover

11. Insertion of the PCBs
    a. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.7.3.3-4 and Fig. 3.7.3.3-10.
    b. Connect the SCSI Interface Cables referring to Fig. 3.7.3.3-10.
    c. Button up the cable cover.

Table 3.7.3.3-4 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB(High Speed)	L	DKA-2L	Basic Location(CL2)

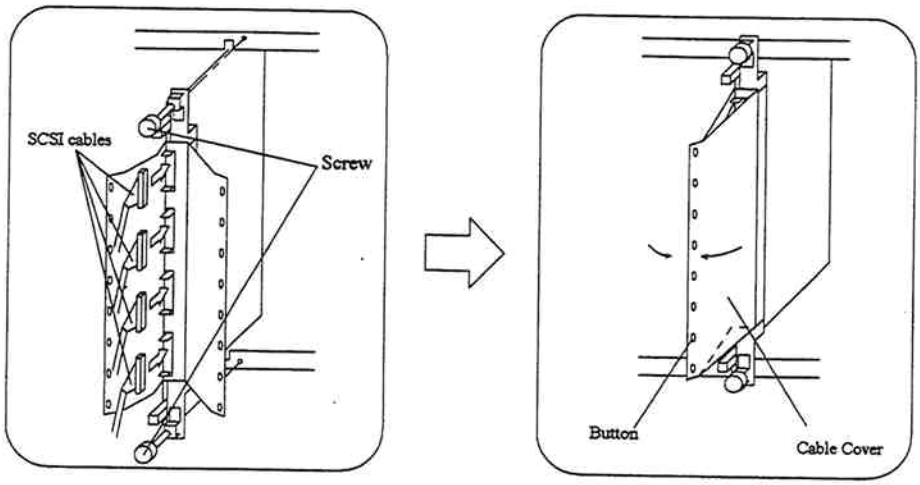


Fig. 3.7.3.3-10 Insertion of PCB

12. Attachment of the nameplate
    a. Attach the nameplate of DKC-F210I-5E referring to Fig. 3.7.3.3-11.

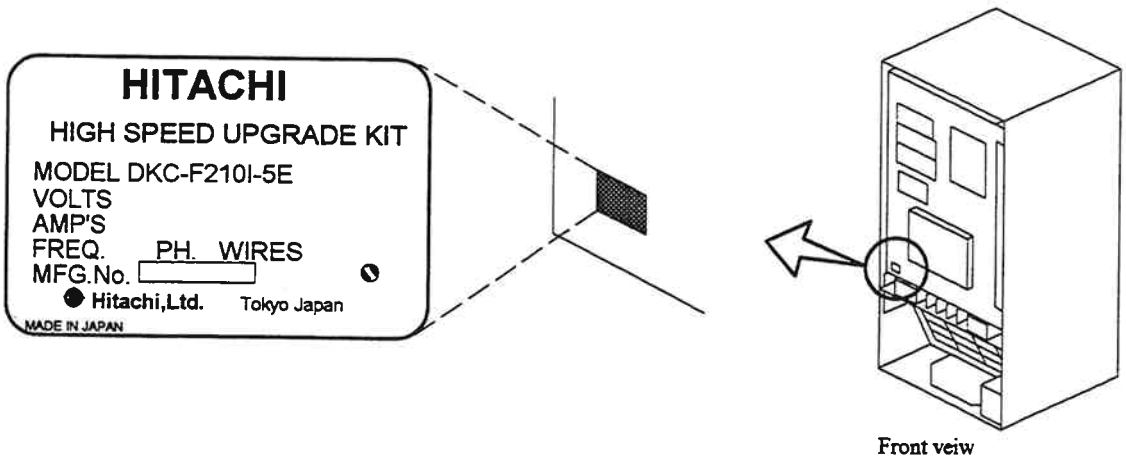
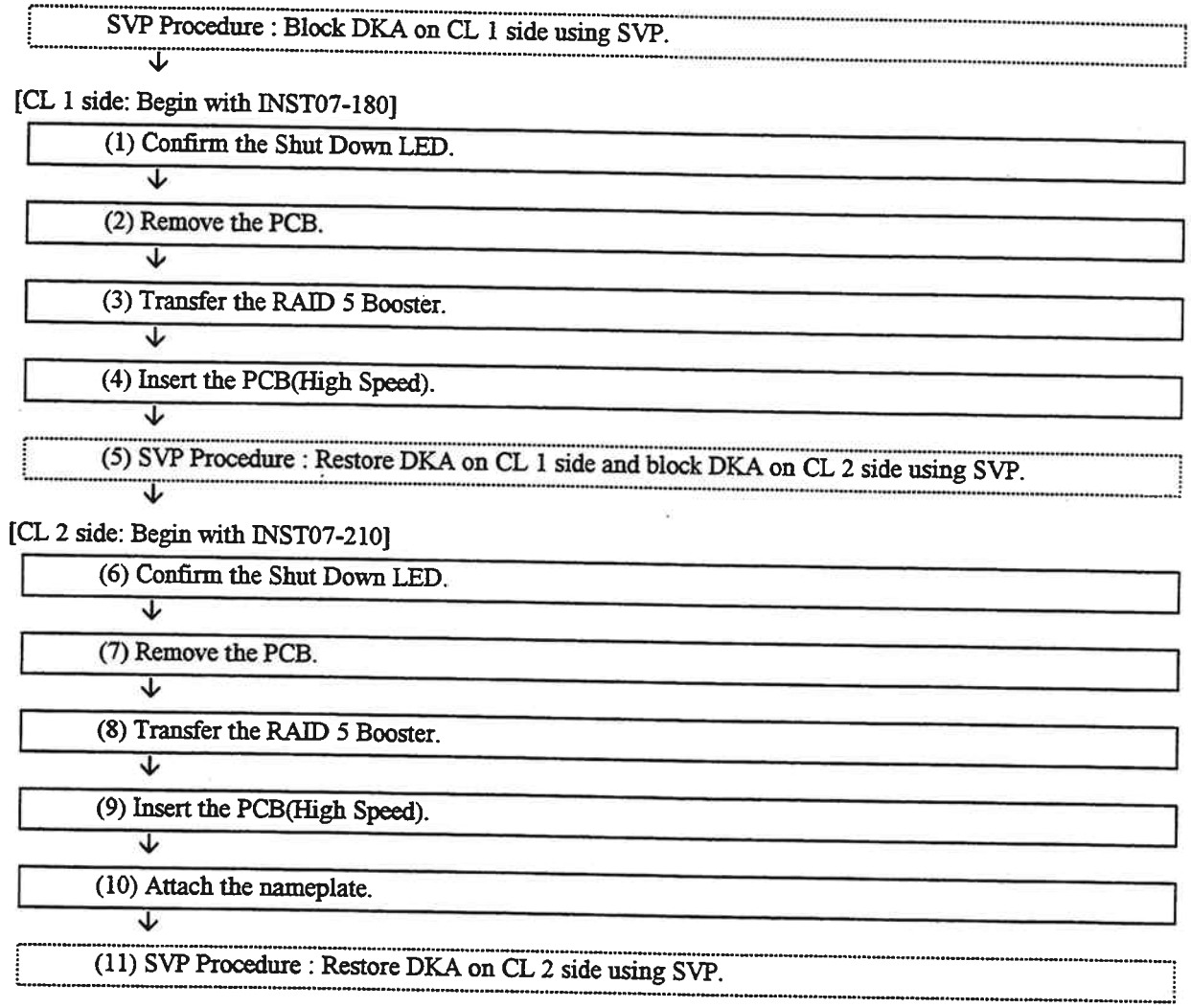


Fig. 3.7.3.3-11 Attachment of Nameplate

13. SVP Procedure.
    Go to INST07-10 Step(7).

3.7.4 Changing Additional 8-path Box Adapter to High Speed Adapter

3.7.4.1 Flowchart



3.7.4.2 Parts list

Table 3.7.4.2-1 Parts List for High Speed Additional 8-path Box Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
2	DKC-F210I-50E	Disk Adapter PCB	3244973-B	2	
		Clip(2)	5480324-1	2	
		Clip(4)	5480326-1	2	
		Nameplate	3244906-1	1	

3.7.4.3 Procedure of Changing Additional 8-path Box Adapter to High Speed Adapter

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

1. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.4.3-1) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

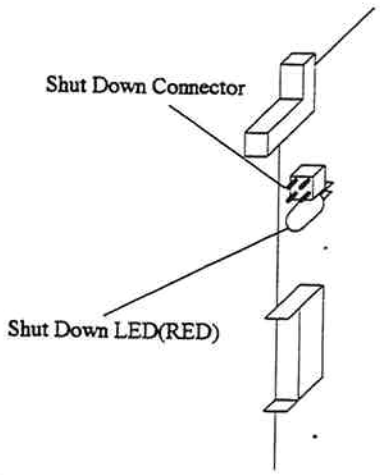


Fig. 3.7.4.3-1 Shut Down LED

2. Removal of the PCBs
   a. Unfasten the buttons to open the cable cover.
   b. Remove the SCSI Interface Cables referring to Fig. 3.7.4.3-2.
   c. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.7.4.3-1 and Fig. 3.7.4.3-2.

Table 3.7.4.3-1 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB	H	DKA-1H	1st set(CL 1 side)
2	Disk Adapter PCB	J	DKA-1J	2nd set(CL 1 side)
3	Disk Adapter PCB	K	DKA-1K	3rd set(CL 1 side)

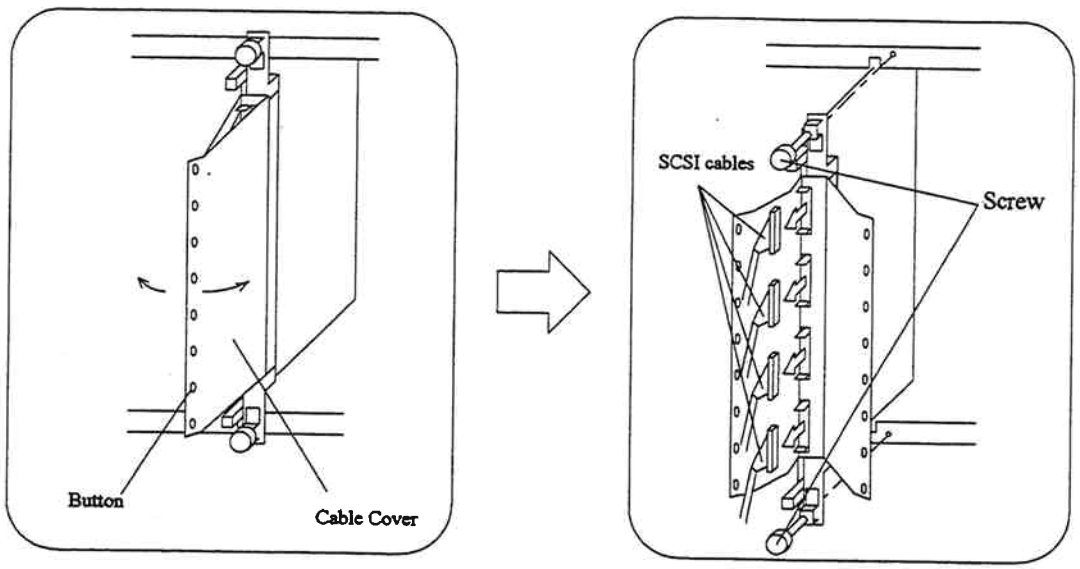


Fig. 3.7.4.3-2 Removal of PCB

3. Transfer of RAID 5 Booster
   a. Remove the RAID 5 Booster from the removed PCB, and attach the RAID 5 Booster to the new PCB(High Speed).

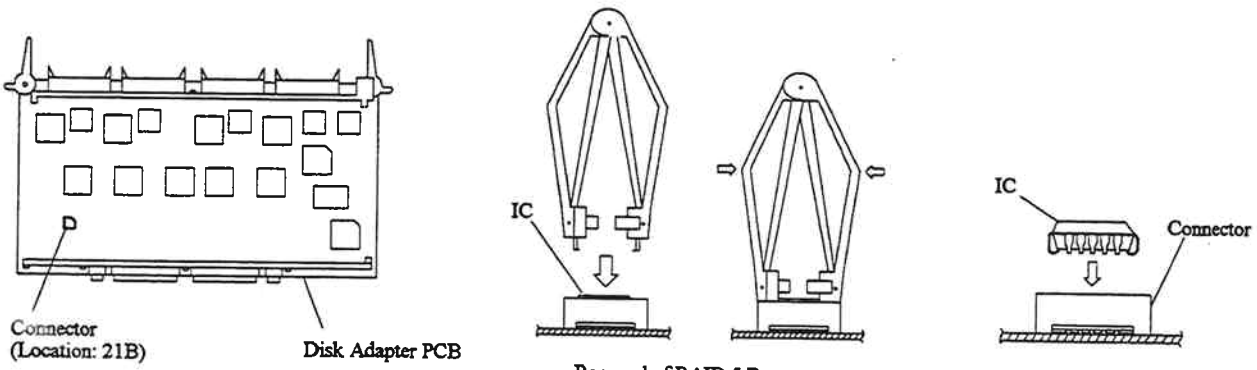


Fig. 3.7.4.3-3 Transfer of RAID 5 Booster

4. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.7.4.3-2 and Fig. 3.7.4.3-4.
   b. Connect the SCSI Interface Cables referring to Fig. 3.7.4.3-4.
   c. Button up the cable cover.

Table 3.7.4.3-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB(High Speed)	H	DKA-1H	1st set(CL 1 side)
2	Disk Adapter PCB(High Speed)	J	DKA-1J	2nd set(CL 1 side)
3	Disk Adapter PCB(High Speed)	K	DKA-1K	3rd set(CL 1 side)

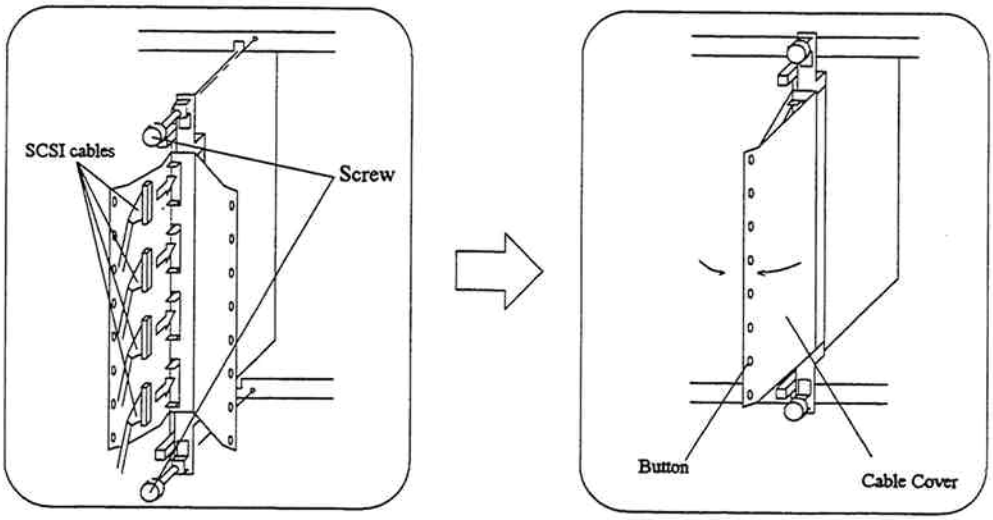


Fig. 3.7.4.3-4 Insertion of PCB

5. SVP Procedure

   Go to INST07-10 Step(3).

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

6. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.4.3-5) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

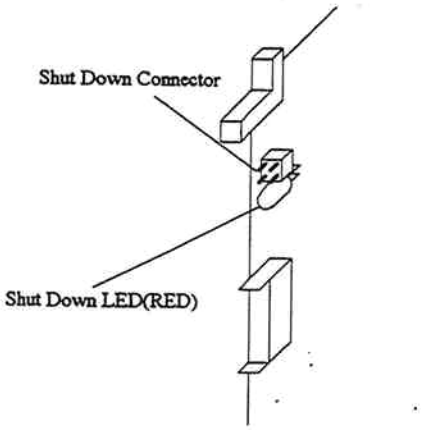


Fig. 3.7.4.3-5 Shut Down LED

7. Removal of the PCBs
   a. Remove the SCSI Interface Cables referring to Fig. 3.7.4.3-6.
   b. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.7.4.3-3 and Fig. 3.7.4.3-6.

Table 3.7.4.3-3 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB	M	DKA-2M	1st set(CL 2 side)
2	Disk Adapter PCB	N	DKA-2N	2nd set(CL 2 side)
3	Disk Adapter PCB	P	DKA-2P	3rd set(CL 2 side)

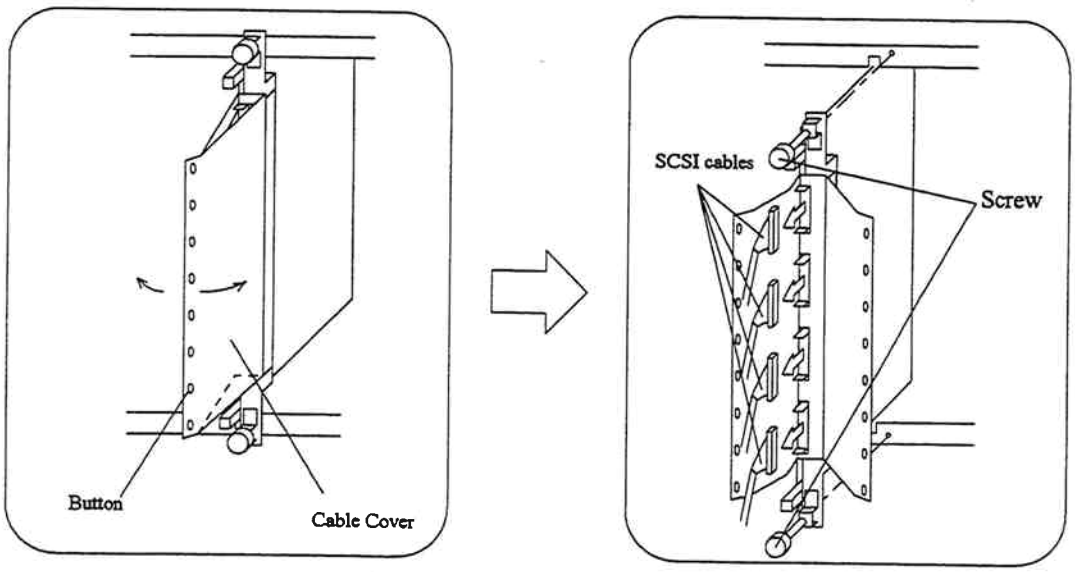


Fig. 3.7.4.3-6 Removal of PCB

8. Transfer of RAID 5 Booster

a. Remove the RAID 5 Booster from the removed PCB, and attach the RAID 5 Booster to the new PCB(High Speed).

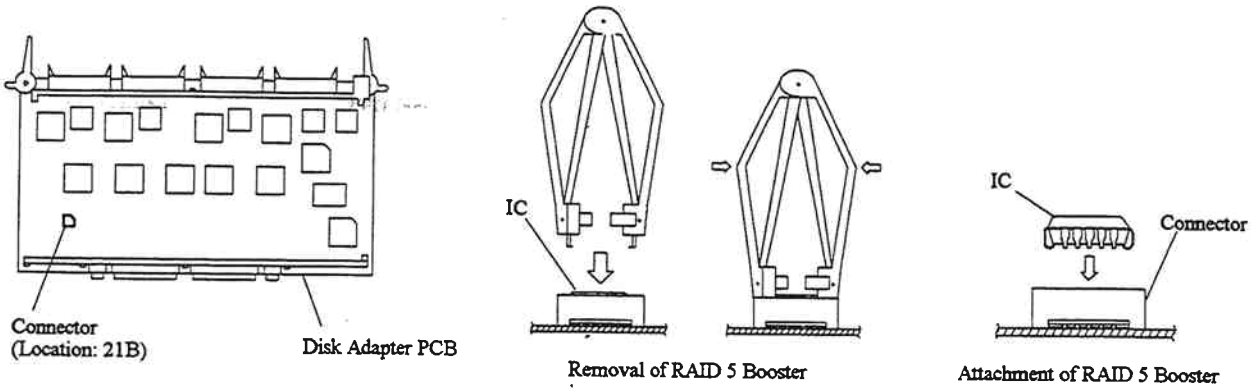


Fig. 3.7.4.3-7 Transfer of RAID 5 Booster

9. Insertion of the PCBs

a. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.7.4.3-4 and Fig. 3.7.4.3-8.

b. Connect the SCSI Interface Cables referring to Fig. 3.7.4.3-8.

c. Button up the cable cover.

Table 3.7.4.3-4 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Disk Adapter PCB(High Speed)	M	DKA-2M	1st set(CL 2 side)
2	Disk Adapter PCB(High Speed)	N	DKA-2N	2nd set(CL 2 side)
3	Disk Adapter PCB(High Speed)	P	DKA-2P	3rd set(CL 2 side)

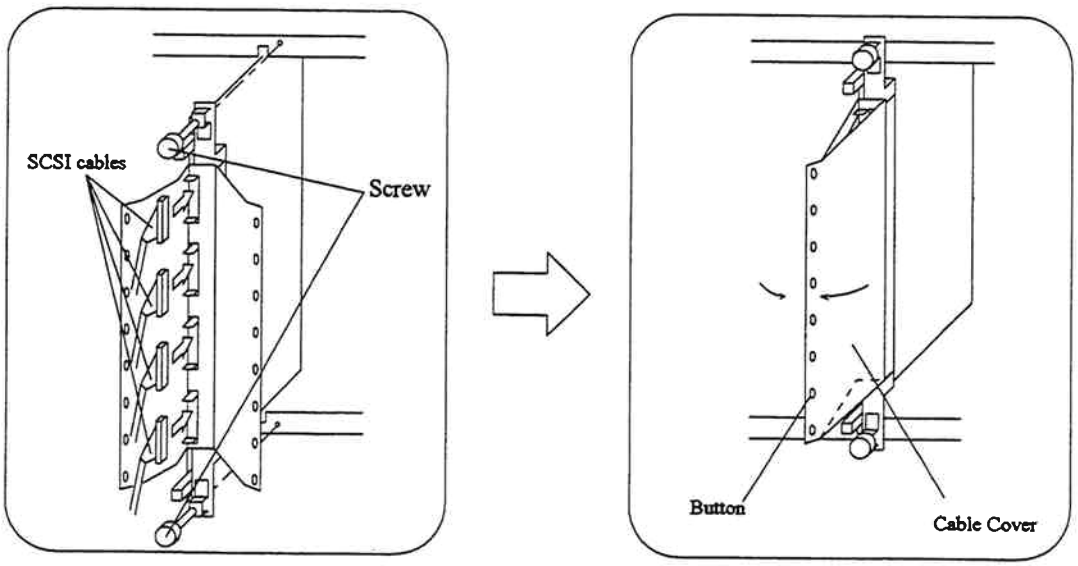


Fig. 3.7.4.3-8 Insertion of PCB

10. Changing of the nameplate
    a. Remove the existing nameplate.
    a. Attach the nameplate referring to Fig. 3.7.4.3-9.

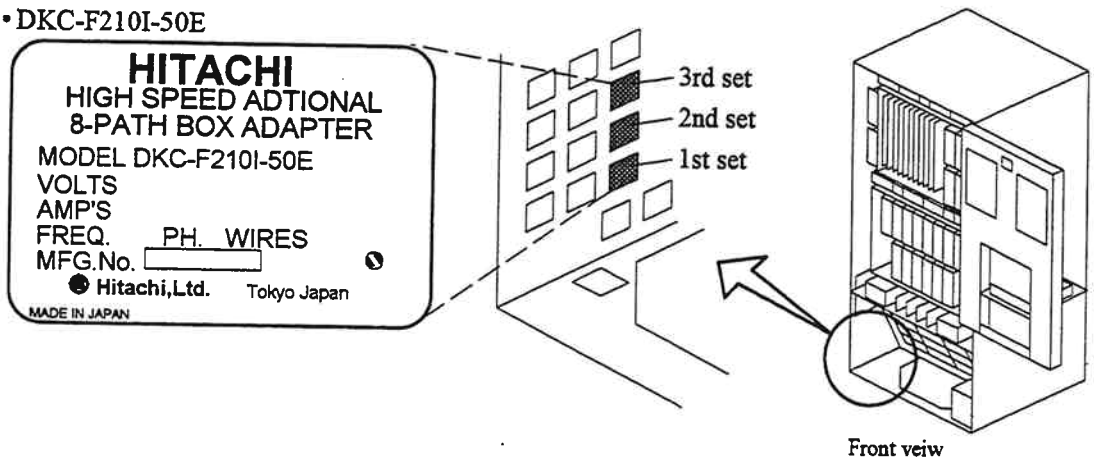
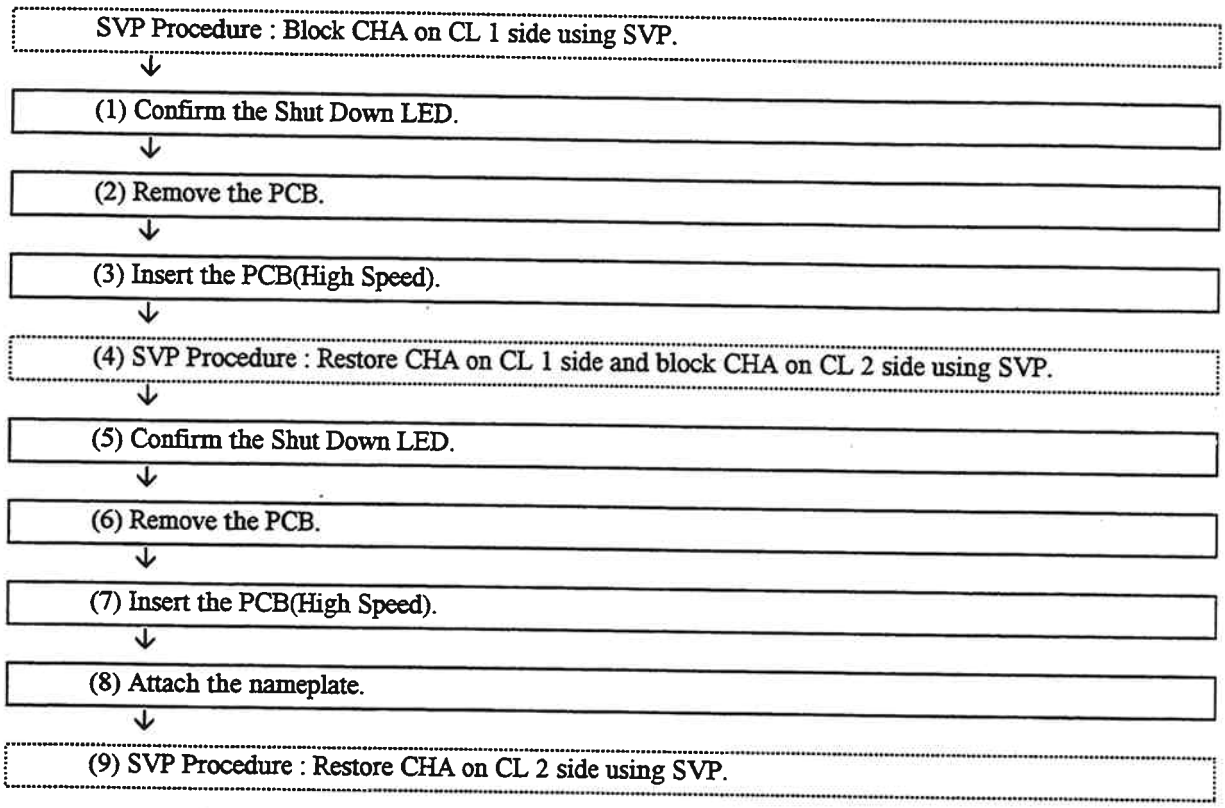


Fig. 3.7.4.3-9 Attachment of Nameplate

11. SVP Procedure
    Go to INST07-10 Step(7).

3.7.5 Changing Channel Switch to High Speed Adapter

3.7.5.1 Flowchart



<Hardware Procedure>

Changing Parallel 8 Channel Switch to High Speed Adapter ..... [CL 1 side: Begin with INST07-250]
[CL 2 side: Begin with INST07-280]

Changing Serial 4 Port Adapter to High Speed Adapter ..... [CL 1 side: Begin with INST07-300]
[CL 2 side: Begin with INST07-320]

Changing Serial 8 Port Adapter to High Speed Adapter ..... [CL 1 side: Begin with INST07-340]
[CL 2 side: Begin with INST07-360]

3.7.5.2 Changing Parallel 8 Channel Switch to High Speed Adapter

3.7.5.2.1 Parts list

Table 3.7.5.2.1-1 Parts List for High Speed Parallel 8 Channel Switch

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-8PE	Channel Adapter PCB	3244974-A	2	
		I/F Connector Panel	2099257-A	1	Cluster 1 side
		I/F Connector Panel	2099257-B	1	Cluster 2 side
		Screw	SB408	20	
		Clip(1)	5480323-1	2	
		Clip(4)	5480326-1	4	
		Label	5480349-2	4	Parallel
		Nameplate	3244905-1	1	
		Bypass Connector	5430027-8	8	For removal of CHA

3.7.5.2.2 Procedure of Changing Parallel 8 Channel Switch to High Speed Adapter

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

1. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.5.2.2-1) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

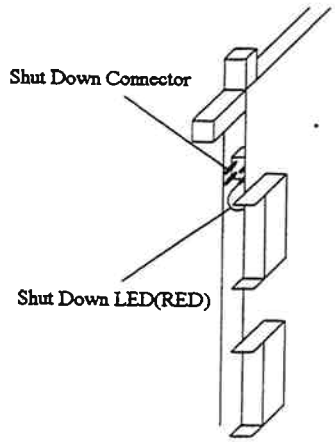


Fig. 3.7.5.2.2-1 Shut Down LED

2. Removal of the PCBs

Note: If the DKC is connecting with the other DKC, the bypass connectors must be inserted to all CH cables that connect to the PCB to be removed.

a. Unfasten the buttons to open the cable cover.
b. Remove the CH Cables referring to Fig. 3.7.5.2.2-2.
c. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.7.5.2.2-1 and Fig. 3.7.5.2.2-2.
d. If the Shut Down Jumper is used, remove it.

Table 3.7.5.2.2-1 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E	CHA-1E	Basic Location(CL 1 side)
2	Channel Adapter PCB	F	CHA-1F	Additional Location(CL 1 side)

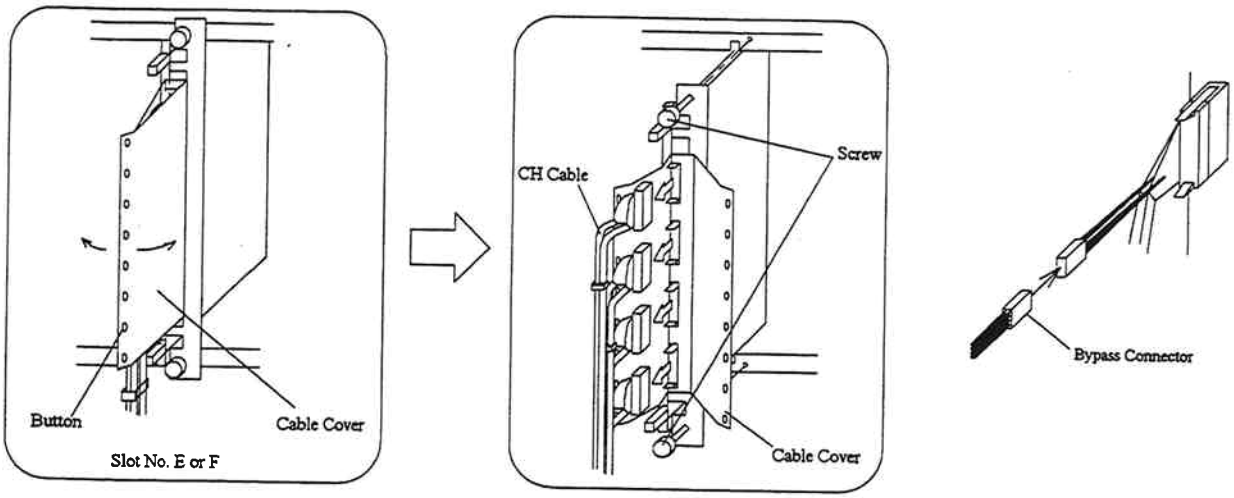


Fig. 3.7.5.2.2-2 Removal of PCB

3. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.7.5.2.2-2 and Fig. 3.7.5.2.2-3.
   b. Connect the CH Cables referring to Fig. 3.7.5.2.2-3.
   c. Button up the cable cover.
   d. If the bypass connectors are used, remove them.

Table 3.7.5.2.2-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB(High Speed)	E	CHA-1E	Basic Location(CL 1 side)
2	Channel Adapter PCB(High Speed)	F	CHA-1F	Additional Location(CL 1 side)

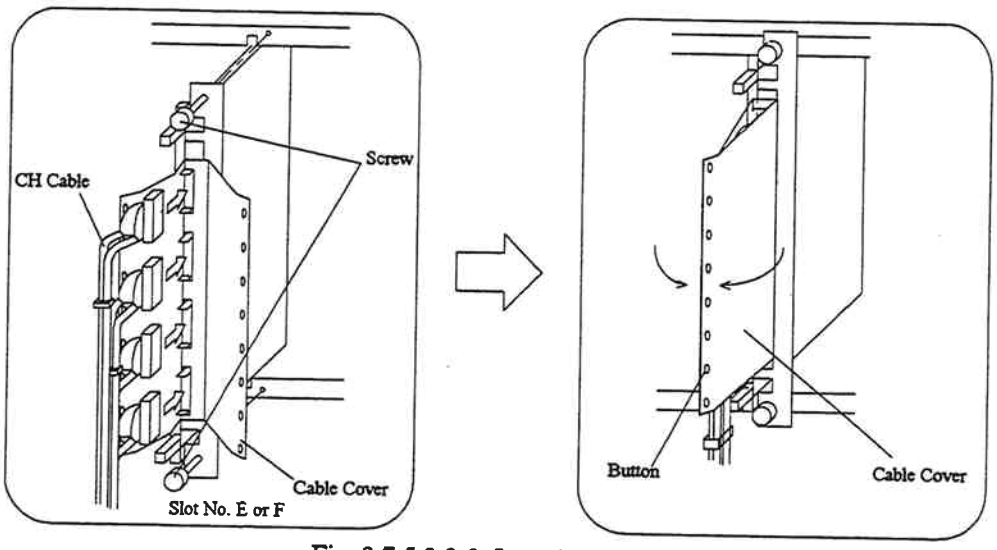


Fig. 3.7.5.2.2-3 Insertion of PCB

4. SVP Procedure
   Go to INST07-10 Step(3).

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

5. Confirmation of Shut Down LED

   a. Confirm that the Shut Down LED lights.(Fig. 3.7.5.2.2-4) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

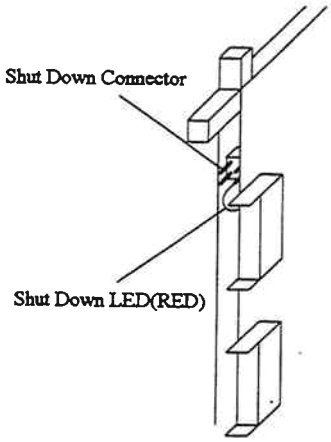


Fig. 3.7.5.2.2-4 Shut Down LED

6. Removal of the PCBs

   Note: If the DKC is connecting with the other DKC, the bypass connectors must be inserted to all CH cables that connect to the PCB to be removed.

   a. Unfasten the buttons to open the cable cover.
   b. Remove the CH Cables referring to Fig. 3.7.5.2.2-5.
   c. Remove the two screws, and remove the PCBs from the correct locations in the Logic Box. Refer to Table 3.7.5.2.2-3 and Fig. 3.7.5.2.2-5.
   d. If the Shut Down Jumper is used, remove it.

Table 3.7.5.2.2-3 Removal Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	Q	CHA-2Q	Basic Location(CL 2 side)
2	Channel Adapter PCB	R	CHA-2R	Additional Location(CL 2 side)

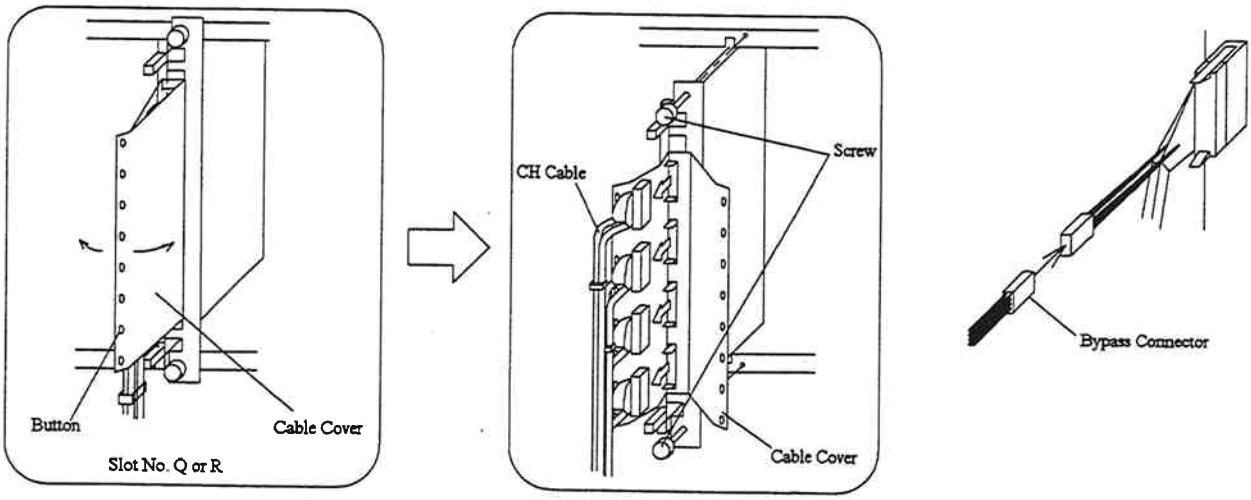


Fig. 3.7.5.2.2-5 Removal of PCB

7. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in the Logic Box. Refer to Table 3.7.5.2.2-4 and Fig. 3.7.5.2.2-6.
   b. Connect the CH Cables referring to Fig. 3.7.5.2.2-6.
   c. Button up the cable cover.
   d. If the bypass connectors are used, remove them.

Table 3.7.5.2.2-4 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB(High Speed)	Q	CHA-2Q	Basic Location(CL 2 side)
2	Channel Adapter PCB(High Speed)	R	CHA-2R	Additional Location(CL 2 side)

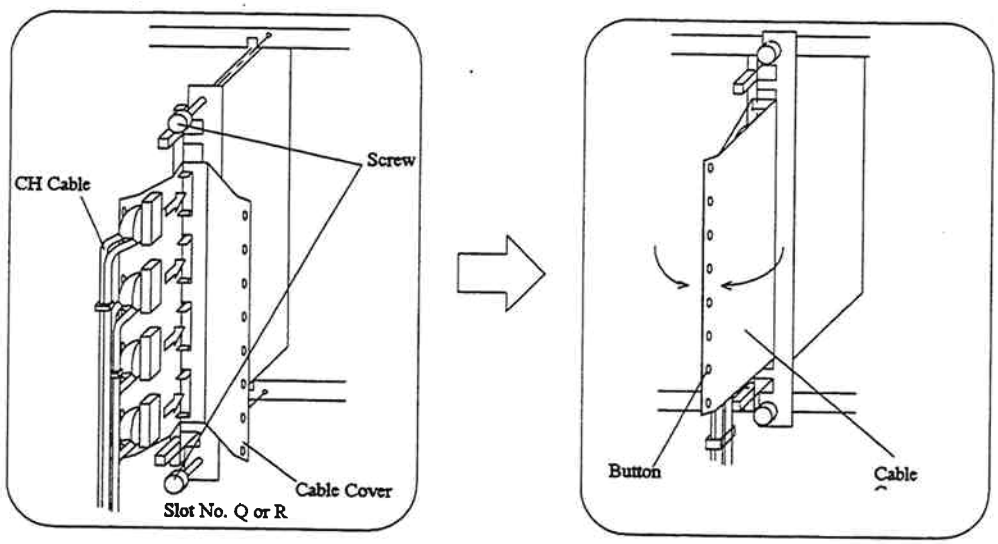


Fig. 3.7.5.2.2-6 Insertion of PCB

8. Changing of the nameplate
   a. Remove the existing nameplate.
   b. Attach the nameplate referring to Fig. 3.7.5.2.2-7.

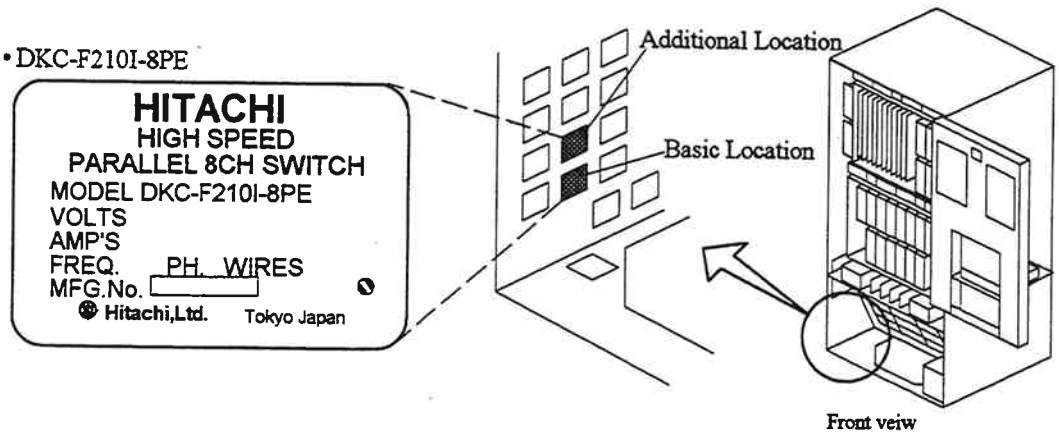


Fig. 3.7.5.2.2-7 Attachment of Nameplate

9. SVP Procedure

   Go to INST07-10 Step(7).

3.7.5.3 Changing Serial 4 port Adapter to High Speed Adapter

3.7.5.3.1 Parts list

Table 3.7.5.3.1-1 Parts List for High Speed Serial 4 Port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-4SE	Channel Adapter PCB	3244935-B	2	
		I/F Connector Panel	3228996-A	2	
		Screw	SB408	20	
		Label	5480349-1	2	Serial
		Screw	SB306	4	
		Bracket	5471998-1	2	
		Holder	2084816-1	4	
		Nameplate	3244903-1	1	

3.7.5.3.2 Procedure of Changing Serial 4 port Adapter to High Speed Adapter

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

1. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.5.3.2-1) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

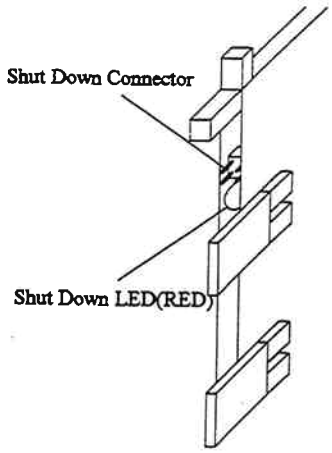


Fig. 3.7.5.3.2-1 Shut Down LED

2. Removal of the PCBs
   a. Disconnect the optical fiber cables.
   b. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 3.7.5.3.2-2.

Table 3.7.5.3.2-1 Removal Location

No.	Parts name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E	CHA-1E	Basic Location(CL 1 side)
2	Channel Adapter PCB	F	CHA-1F	Additional Location(CL 1 side)

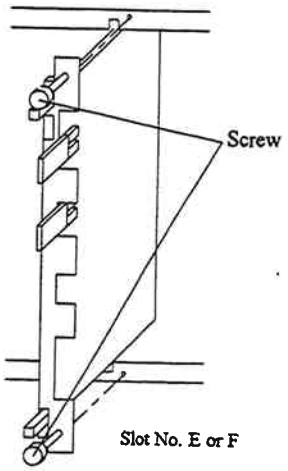


Fig. 3.7.5.3.2-2 Removal of PCB

3. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.7.5.3.2-2.
   b. Fasten the two screws referring to Fig. 3.7.5.3.2-2.
   c. Connect the optical fiber cables.

Table 3.7.5.3.2-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB(High Speed)	E	CHA-1E	Basic Location(CL 1 side)
2	Channel Adapter PCB(High Speed)	F	CHA-1F	Additional Location(CL 1 side)

4. SVP Procedure

   Go to INST07-10 Step(3).

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

5. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.5.3.2-3) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

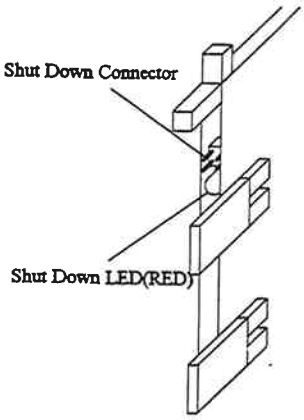


Fig. 3.7.5.3.2-3 Shut Down LED

6. Removal of the PCBs
   a. Disconnect the optical fiber cables.
   b. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 3.7.5.3.2-4.

Table 3.7.5.3.2-3 Removal Location

No.	Parts name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	Q	CHA-1Q	Basic Location(CL 2 side)
2	Channel Adapter PCB	R	CHA-1R	Additional Location(CL 2 side)

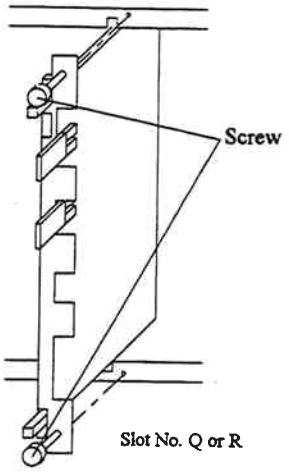


Fig. 3.7.5.3.2-4 Removal of PCB

7. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.7.5.3.2-4.
   b. Fasten the two screws referring to Fig. 3.7.5.3.2-5.
   c. Connect the optical fiber cables.

Table 3.7.5.3.2-4 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB(High Speed)	Q	CHA-1Q	Basic Location(CL 2 side)
2	Channel Adapter PCB(High Speed)	R	CHA-1R	Additional Location(CL 2 side)

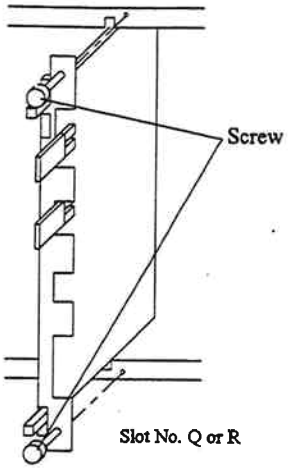


Fig. 3.7.5.3.2-5 Insertion of PCB

8. Changing of the nameplate
   a. Remove the existing nameplate.
   b. Attach the nameplate referring to Fig. 3.7.5.3.2-6.

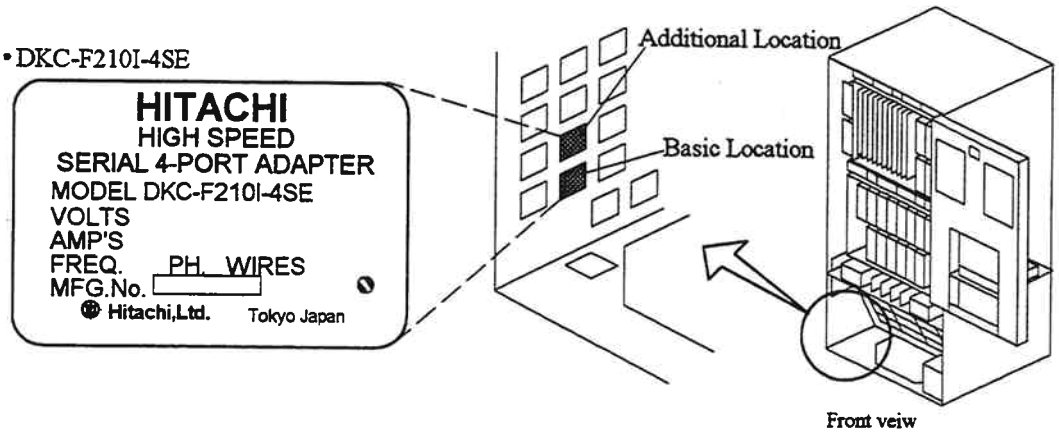


Fig. 3.7.5.3.2-6 Attachment of Nameplate

9. SVP Procedure

   Go to INST07-10 Step(7).

3.7.5.4 Changing Serial 8 port Adapter to High Speed Adapter

3.7.5.4.1 Parts list

Table 3.7.5.4.1-1 Parts List for High Speed Serial 8 Port Adapter

No.	Model Number	Part Name	Part No.	Quantity	Remarks
1	DKC-F210I-8SE	Channel Adapter PCB	3244935-A	2	
		I/F Connector Panel	3228996-B	2	
		Screw	SB408	20	
		Label	5480349-1	4	Serial
		Screw	SB306	4	
		Bracket	5471998-1	2	
		Holder	2084816-1	8	
		Nameplate	3244904-1	1	

3.7.5.4.2 Procedure of Changing Serial 8 port Adapter to High Speed Adapter

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

1. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.5.4.2-1) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

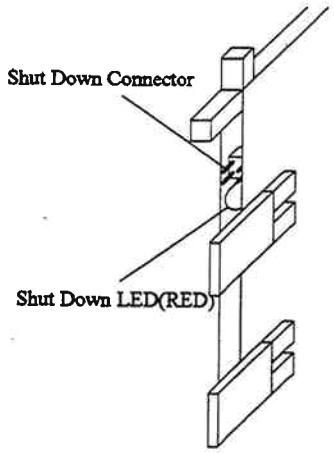


Fig. 3.7.5.4.2-1 Shut Down LED

2. Removal of the PCBs
   a. Disconnect the optical fiber cables.
   b. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 3.7.5.4.2-2.

Table 3.7.5.4.2-1 Removal Location

No.	Parts name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	E	CHA-1E	Basic Location(CL 1 side)
2	Channel Adapter PCB	F	CHA-1F	Additional Location(CL 1 side)

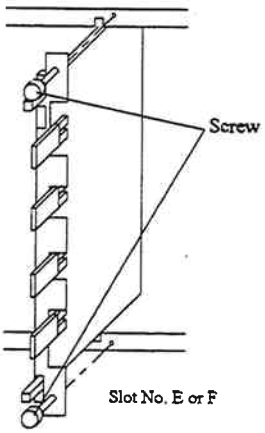


Fig. 3.7.5.4.2-2 Removal of PCB

3. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.7.5.4.2-2.
   b. Fasten the two screws referring to Fig. 3.7.5.4.2-2.
   c. Connect the optical fiber cables.

Table 3.7.5.4.2-2 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB(High Speed)	E	CHA-1E	Basic Location(CL 1 side)
2	Channel Adapter PCB(High Speed)	F	CHA-1F	Additional Location(CL 1 side)

4. SVP Procedure

   Go to INST07-10 Step(3).

Be sure to wear your wrist strap and attach to ground prior to performing the following work. This will insure that the IC and LSI on the PCB are protected from static electricity.

5. Confirmation of Shut Down LED
   a. Confirm that the Shut Down LED lights.(Fig. 3.7.5.4.2-3) If the LED does not light, see Connection of Shut Down Jumper(INST03-2600).

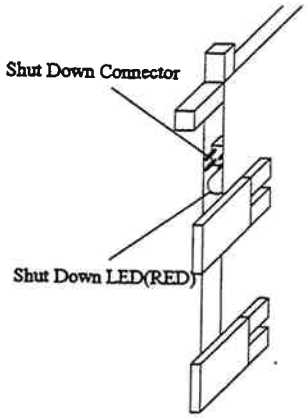


Fig. 3.7.5.4.2-3 Shut Down LED

6. Removal of the PCBs
   a. Disconnect the optical fiber cables.
   b. Remove the two screws and remove the PCBs from the correct locations in the Logic Box referring to Fig. 3.7.5.4.2-4.

Table 3.7.5.4.2-3 Removal Location

No.	Parts name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB	Q	CHA-1Q	Basic Location(CL 2 side)
2	Channel Adapter PCB	R	CHA-1R	Additional Location(CL 2 side)

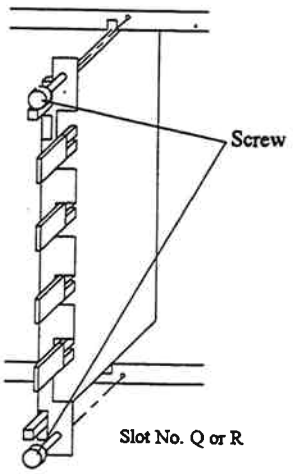


Fig. 3.7.5.4.2-4 Removal of PCB

7. Insertion of the PCBs
   a. Insert the PCBs to the correct locations in Logic Box referring to Table 3.7.5.4.2-4.
   b. Fasten the two screws referring to Fig. 3.7.5.4.2-5.
   c. Connect the optical fiber cables.

Table 3.7.5.4.2-4 Inserting Location

No.	Part name	Slot No.	Location No.	Remarks
1	Channel Adapter PCB(High Speed)	Q	CHA-1Q	Basic Location(CL 2 side)
2	Channel Adapter PCB(High Speed)	R	CHA-1R	Additional Location(CL 2 side)

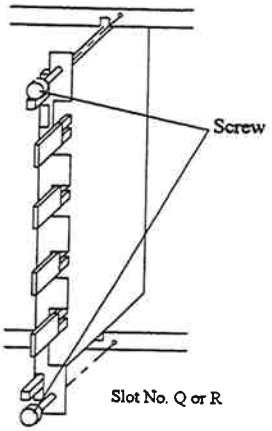


Fig. 3.7.5.4.2-5 Insertion of PCB

8. Changing of the nameplate
   a. Remove the existing nameplate.
   b. Attach the nameplate referring to Fig. 3.7.5.4.2-6.

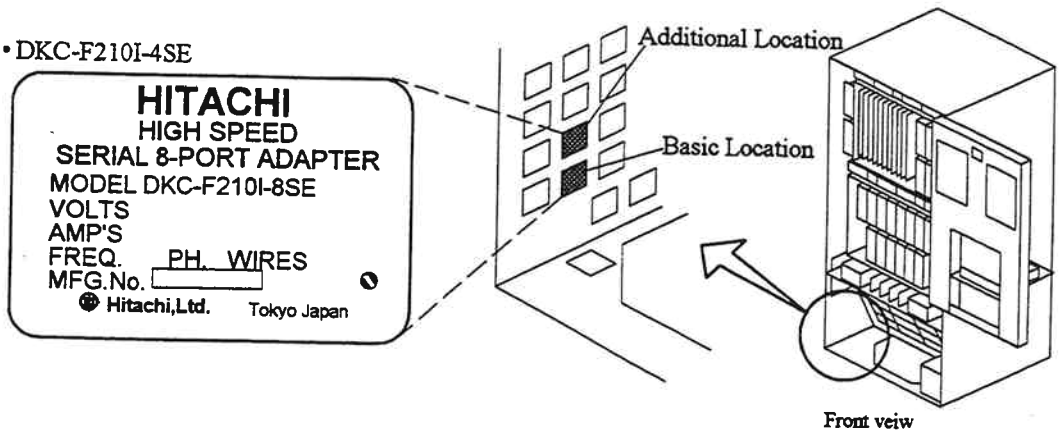


Fig. 3.7.5.4.2-6 Changing of Nameplate

9. SVP Procedure

   Go to INST07-10 Step(7).

Blank sheet

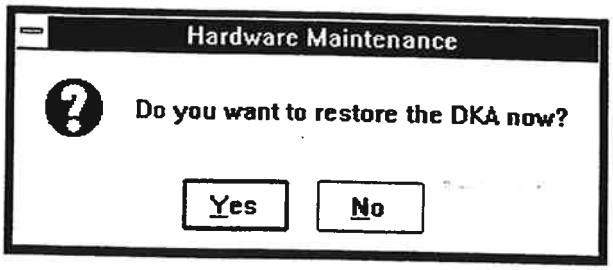
Blank sheet

3.7.6 Post-Procedure (SVP Procedure)

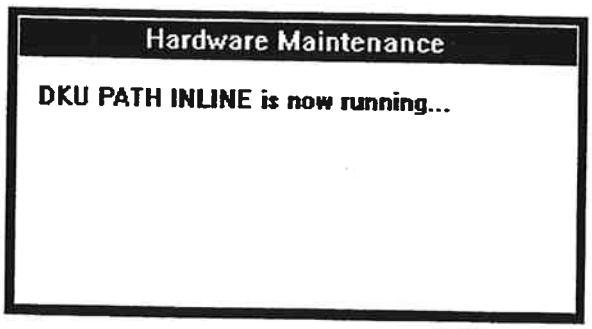
— OUTLINE —

① Specify recovery for CHA/DKA.
② Path online (for CHA)
③ SIM Complete

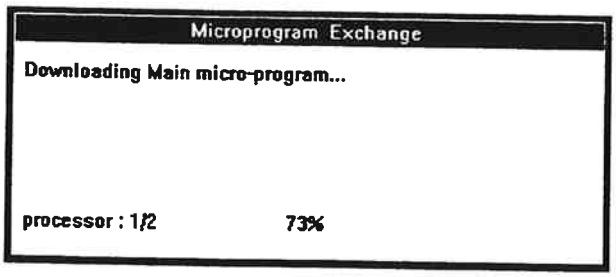
1. <Check the beginning of CHA/DKA recovery>
   Select [Yes] (CL) in response to:
   * For CHA
   "Do you want to restore the CHA now?"
   Go to step 3.
   * For DKA
   "Do you want to restore the DKA now?"
   Go to step 2.



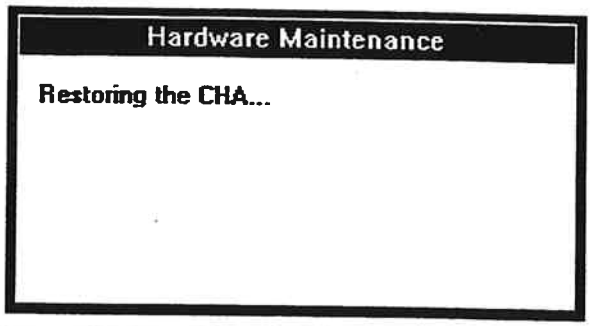
2.
   "DKU PATH INLINE" is displayed.
   (for DKA)



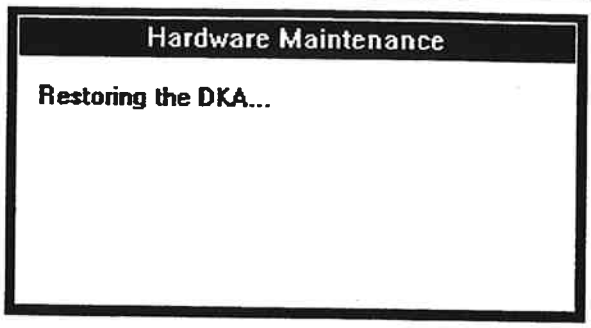
3. <Micro-program down loading>
   "Micro-program Exchange" is displayed.



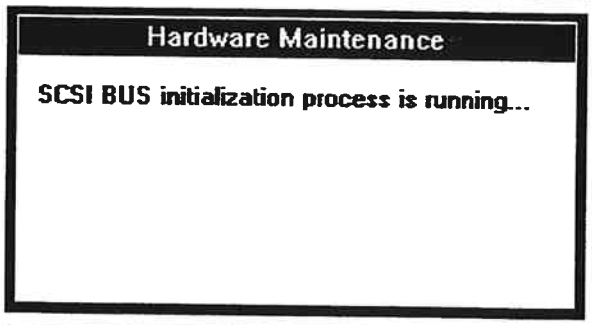
4. <Check the CHA/DKA recovery processing>
The following message is displayed:
* For CHA
"Restoring the CHA..."



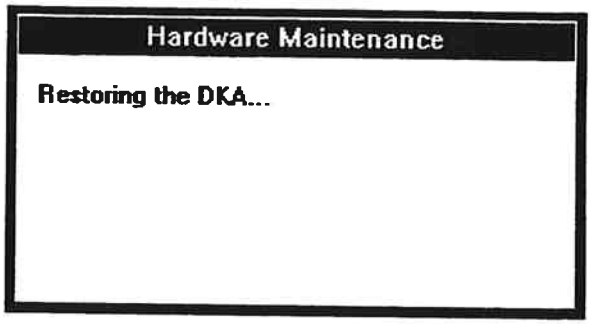
* For DKA
"Restoring the DKA..."



"SCSI BUS initialization process is running..."



"Restoring the DKA..."



5. <Check the end of CHA/DKA recovery>
Select [OK] (CL) in response to :
* For CHA
"Restoring the CHA is completed. Please check subsystem status with STATUS."
* For DKA
"Restoring the DKA is completed. Please check subsystem status with STATUS."

6. <Path on-line when CHA is replaced>
   Whenever a CHA is replaced, set the path (from the host) on the replaced Host Adapter PCB to ONLINE.

7. <SIM Complete>
   See SVP02-510.

8.
   Close 'MainPlatter Maintenance' window.
   Close 'Hardware Maintenance' window.
   Close 'Maintenance Online' window.

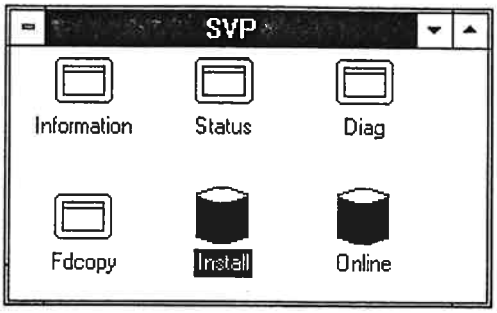
   [In case of cluster 1]
   Go to INST07-10 step (4).
   [In case of cluster 2]
   Go to INST07-10 step (8).

3.8 SVP procedure for DK309-180 (DKU-F305I-1804/1801)

3.8.1 How to set the configuration information of RAID5(3D+1P)/RAID1

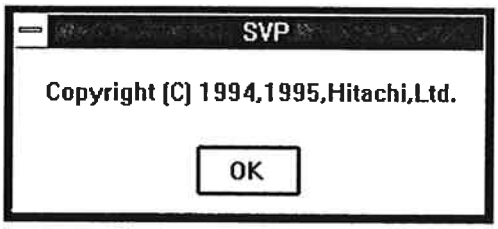
NOTICE
This operation is necessary only when a subsystem is newly installed. It is not performed afterward. If it is performed by mistake, a system down or a data loss may be caused.

1. <Start [Install]>
   Select [Install] from 'SVP' (DC).



2.
   Select [OK] from 'SVP' (CL).

   [Install] is opened.

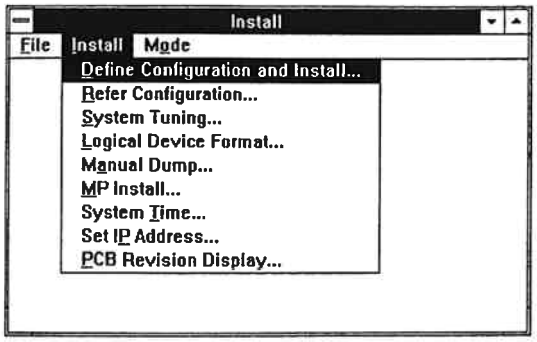


3. <Change SVP mode>
   Select [Modify] from [Mode] on [Install] (DR).

   The SVP is switched into the Modify mode.

4. <Specify beginning of installation>
   Select [Define Configuration and Install...] from [Install] on [Install] (DR).

   Message "This operation will cause fatal damage to subsystem.
   All data and configuration will be initialized.
   You need the password to continue." is shown.



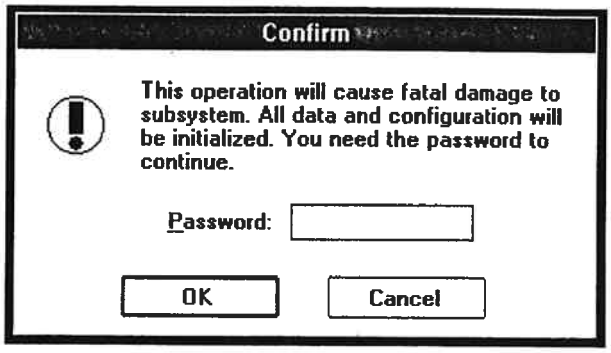
NOTICE

This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if executed in an occasion other the new subsystem installation, and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

5.

Enter the password and select [OK] (CL).
It is needed to input Password in this operation.
Please call Technical Support Center for asking it.

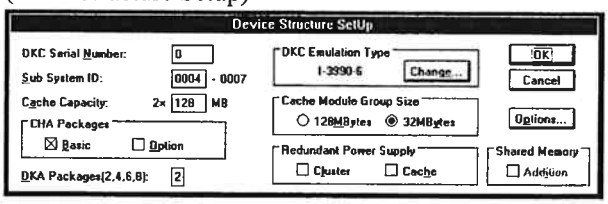
If [Cancel] is selected, terminate the installation procedure.
'Device Structure Setup' is automatically displayed next.



6. <Define configuration information>

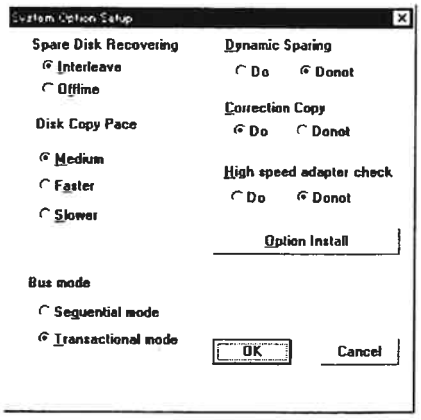
Define the device configuration information from 'Device Structure Setup' according to the device configuration worksheet.
After making sure that all input items are correct, select [OK] (CL). Go to step 11.
This procedure finishes when you select [Cancel].
If [Options...] is selected (CL), 'System Option Setup' is displayed. Go to step 7.
If [Change...] is selected (CL), 'DKC Emulation' is displayed. Go to step 8.

(DKC Structure Setup)



7. <Define System Options>

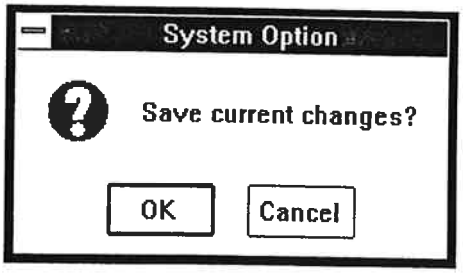
Define the device configuration information from 'System Option Setup' according to the device configuration worksheet.
After setting up all items, select [OK] (CL).
The next message screen is displayed.
When you select [Cancel] (CL), 'System Option Setup' is closed and 'Device Structure Setup' appears again.
[Option Install] button is in order to install feature Option.
(See SVP 10.3).



8. <Save system option>

Select [OK] (CL) in response to confirmation message "Save current change?".

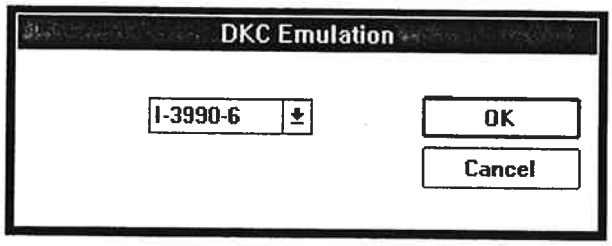
Selecting [Cancel] (CL) returns the screen to step 6.



9. <Set DKC emulation type>

Define the device configuration information from 'DKC Emulation' according to the device configuration worksheet.

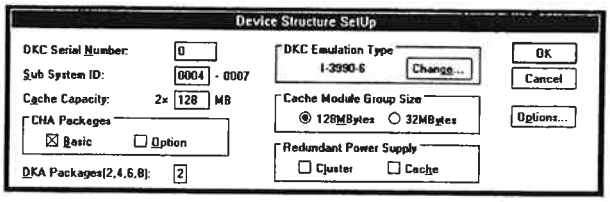
Selecting (CL) [OK] or [Cancel] returns the screen to step 6.



10. <Define configuration information>

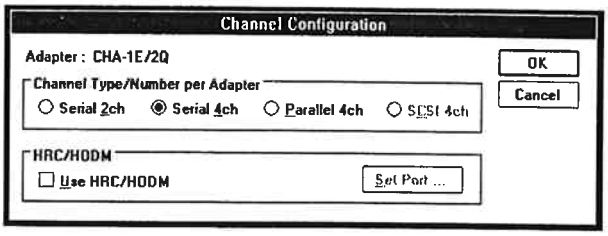
Define the device configuration information from 'Device Structure Setup' according to the device configuration worksheet.

This procedure ends when you select [Cancel].



11.

Define the device configuration information from 'Channel Configuration' according to the device configuration worksheet.
After setting up all items, select [OK] (CL).
(Repeat this operation for all installed CHA PCB.)

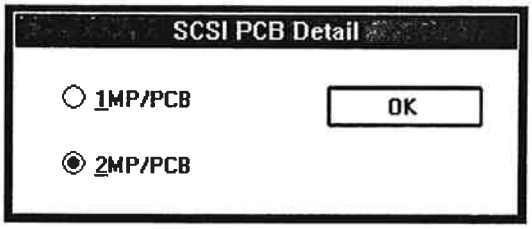


- When you select [Serial 2ch] or [Serial 4ch] from this screen, [Use HRC & HODM] check button changes to enable.
  If you want to establish this DKC as MCU, select (CL) [Use HRC & HODM] and select (CL) [Set Port...] button and go to step 13.
- When you select [Parallel 4ch] from this screen, the next 'Channel Configuration' is displayed.
- When you select [SCSI 4ch] from this screen, go to step 12. Processing skips to step 24 if you select another item.

Selecting [Cancel] returns the screen to step 10.

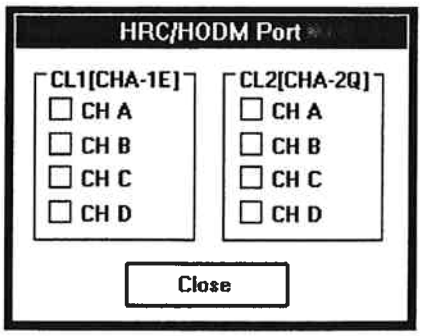
12. <Set 1MP/2MP>

Select (CL) the number of MP and select (CL) [OK].



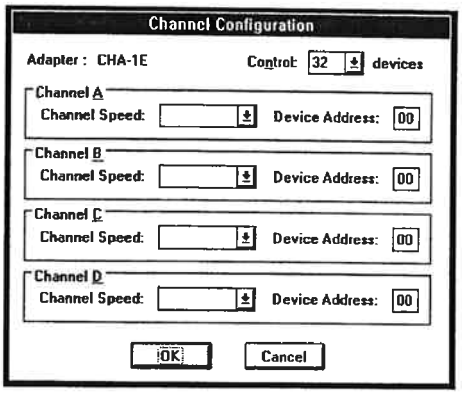
13. <Set RCP Port>

Check (CL) the port that you want to establish RCP port and select (CL) [Close].
The screen returns to step 11.



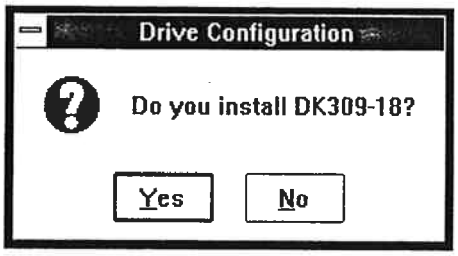
14. <Set Parallel CH>

Define the device configuration information from 'Channel Configuration' according to the device configuration worksheet.
After setting up all items, select (CL) [OK] .
Selecting [Cancel] returns the screen to step 11.



15.

When RAID5 (3D+1P) has not been set, a message asking for confirmation is displayed. Select (CL) [Yes].

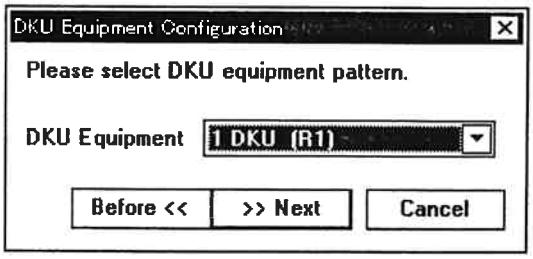


NOTICE
If you select (CL) "No", you could not install DK309-18.

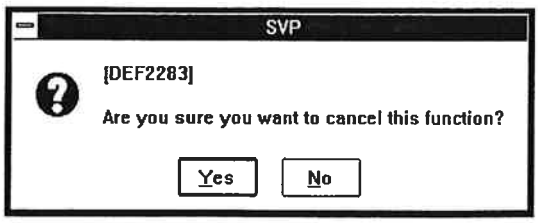
16. <Set DKU Equipment>

Define the DKU equipment pattern in the 'DKU Equipment Configuration'.
After setting up, select (CL) [>>Next], go to step 17.

Selecting (CL) [Before<<] returns you to the previous screen, go to step 6.
This procedure is terminated by selecting (CL) [Cancel].



Selecting [Yes] returns the screen to step 10.

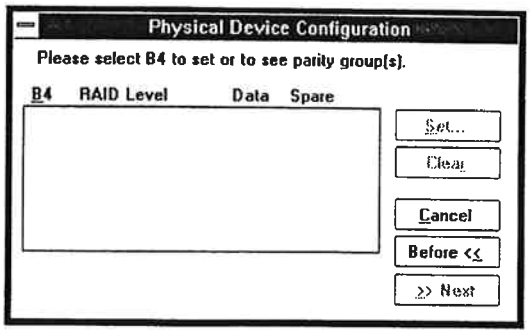


17. <Install Drive Configuration Information>

Define drive configuration according to the 'Physical Device Configuration' screen displaying the mounted B4 based on the result of setting of DKU mount pattern.

Detailed procedure is shown below.

- Select (CL) the item and select (CL) [Set...].
  Go to step 18.
- Selecting (CL) [Clear...] after selecting (CL) the item clears the B4 setting.



After setting up all items, select (CL) [>>Next]. (Go to step 23)

Selecting (CL) [Before<<] returns you to the previous screen. (Go to step 16)

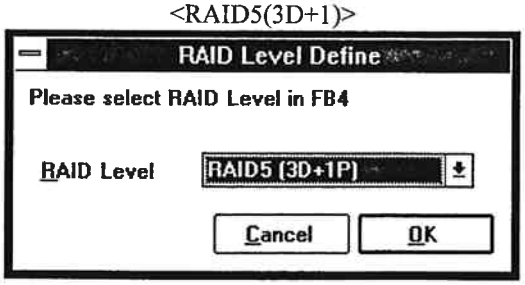
This procedure is terminated by selecting (CL) [Cancel]. (Go to step 10)

B4	Location
1st	HDU-R10, 11, 12, 13
2nd	HDU-R14, 15, 16, 17
3rd	HDU-L10, 11, 12, 13
4th	HDU-L14, 15, 16, 17
5th	HDU-R20, 21, 22, 23
6th	HDU-R24, 25, 26, 27
7th	HDU-L20, 21, 22, 23
8th	HDU-L24, 25, 26, 27

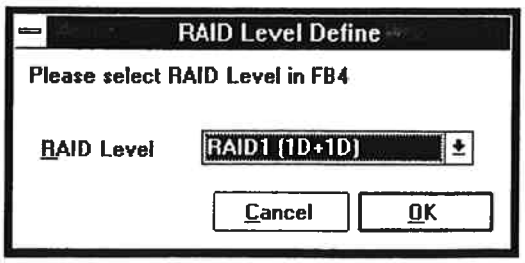
18.

Define RAID level of the B4 in the 'RAID Level Define'.

<RAID5(3D+1)>



<RAID1>

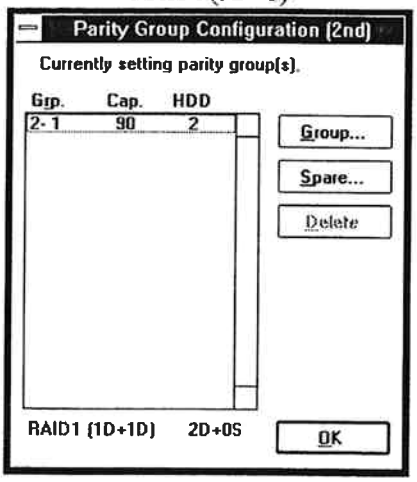


19.

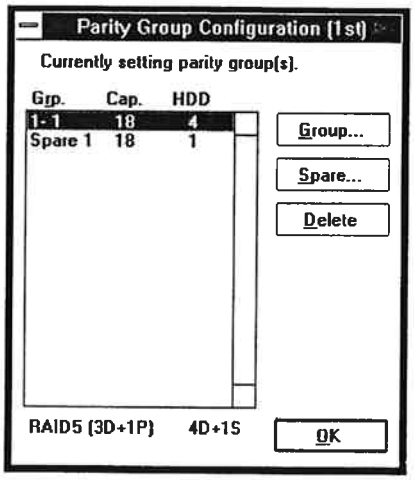
- To define Parity Group, select the drive to be defined and select (CL) [Group...] in the 'Parity Group Configuration' dialog box.
  See step 20.
- To define Spare, select the drive to be defined and select (CL) [Spare...] in the 'Parity Group Configuration' dialog box.
  See step 21.
- To delete an item, select an item to be deleted and select (CL) [Delete] in the 'Parity Group Configuration' dialog box.

After setting up all items, select (CL) [OK]. Return to step 17.

<RAID5(3D+1)>

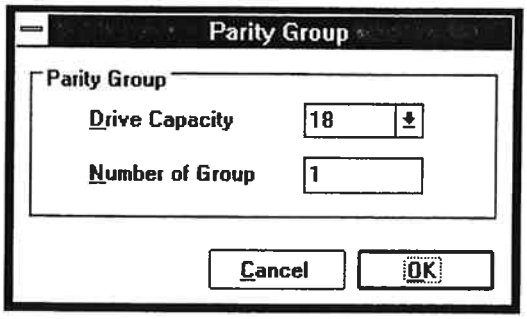


<RAID1>



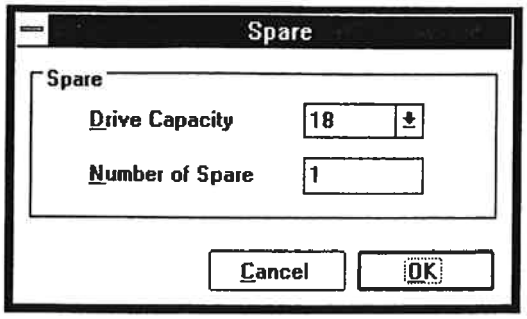
20.

Define the drive capacity and the number of parity groups in the 'Parity Group' dialog box.
Then select (CL) [OK]. Return to step 19.



21.

Define the drive capacity and the number of spare drives in the 'Spare' dialog box. Then select (CL) [OK].
Return to step 19.



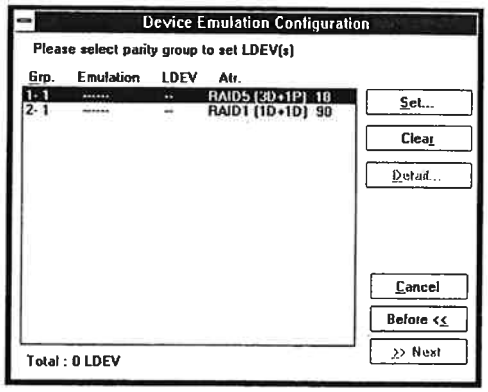
22. <Define Device Emulation>

After setting up all items for definition of Device Emulation, select (CL) [>>Next].
Selecting (CL) [Before<<] returns you to the previous screen.

23.

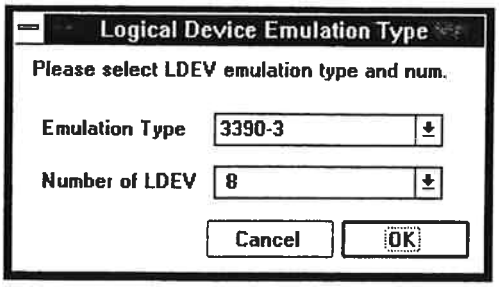
In case of defining Device Emulation:
Select (CL) device and select (CL) [Set...]. (Go to step 24)
This procedure is terminated by selecting (CL) [Cancel]. (Go to step 10)

After setting up all items, select (CL) [>> Next]. (Go to step 26)
Select (CL) [Before <<] returns to step 17.



24.

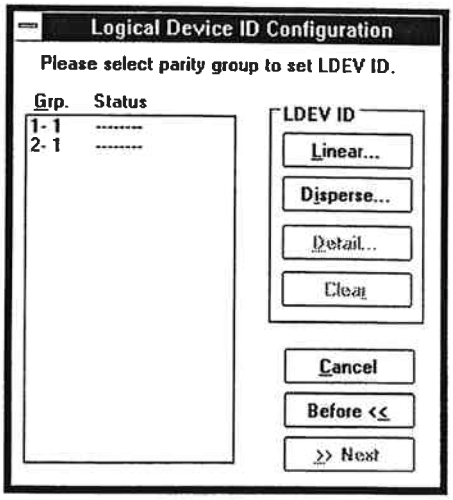
After setting up all items in the 'Logical Device Emulation Type' dialog box, select (CL) [OK]. (Go to step 23)
Selecting (CL) [Cancel] returns to step 23.



25. <Define LDEV ID>

After setting up all items, select (CL) [>>Next]. INST05-190 (Go to step 7)
Selecting (CL) [Before<<] returns you to the previous screen. (Go to step 23)
(Refer to INST05-100 through 110)

26. <Definition Screen for LDEV ID>



Select (CL) the parity group to be defined and select (CL) a function from [LDEV ID] list box.

[Linear...]: LDEV ID is assigned to LDEV in the order of parity group. See step 28.

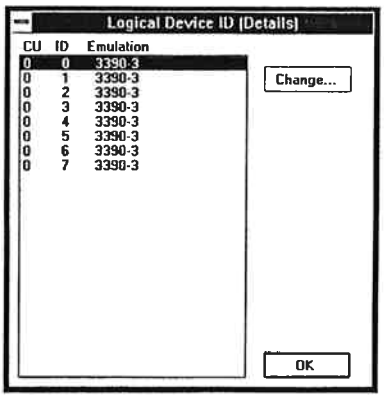
[Disperse...]: LDEV is assigned discretely in the order of parity group. See step 28.

[Detail...]: A screen to define LDEV in detail is displayed. See step 27.

- '-----' is displayed in CU area and ID area for the parity group to which LDEV ID is not assigned.
- 'xxxxx' is displayed in ID area for the parity group to which any LDEV ID is not assigned.

This procedure is terminated by selecting (CL) [Cancel]. (Go to step 10)

27. <Detailed Definition Screen for LDEV ID>

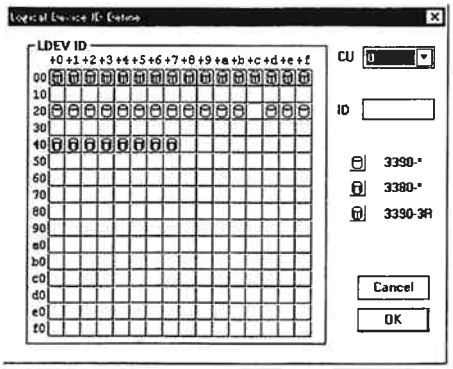


LDEV ID is defined in detail for each LDEV in the parity group.

Select (CL) [LEDV] from the list box and select (CL) [Change...].

The screen for LDEV ID input is displayed.

28. <Input LDEV ID>



The status of usage of ID is displayed in the LDEV ID panel.

White disk of panel: not used

Black disk of panel: using

Input LDEV ID you want to set or head LDEV ID in the ID Edit box.

After setting, select (CL) [OK]. Return to step 25.

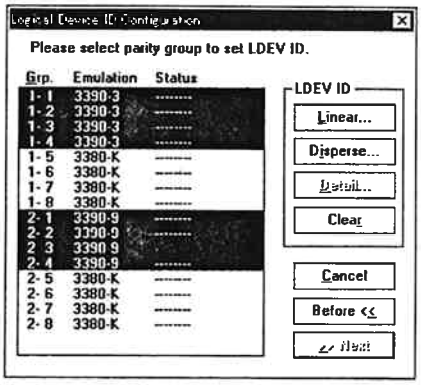
3.8.1.1 LDEV ID setting procedure when the emulation types of different systems coexist

3.8.1.1.1 Coexistence in units of parity group

The LDEV ID setting procedure is explained using an example of a case in which both the 3390 system LDEV and 3380 system LDEV are set in the same subsystem. This example shows the ID setting procedure when the B4-1/B4-2 is fully equipped with RAID5 (3D+1P), and the B4-1 and the B4-2 are defined as the 3390-3/3380-K and the 3390-9/3380-K respectively. Since systems other than the 3390 system and the 3390-3R cannot coexist in the parity group, the ID can be defined in this procedure.

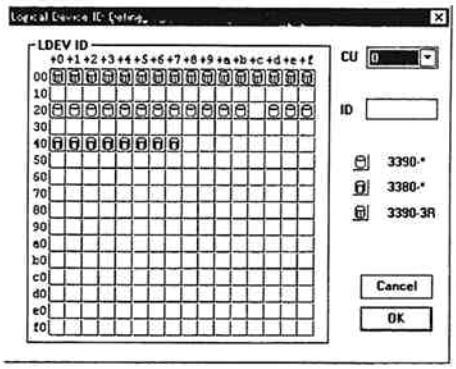
1.

Select only the parity group for which the 3390 system emulation type has been defined.



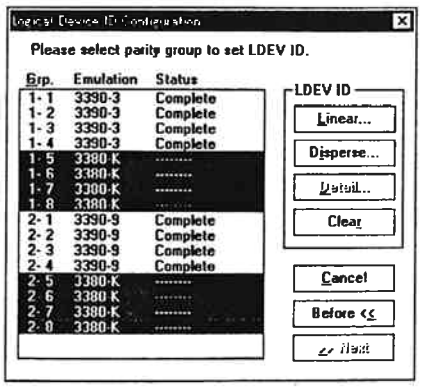
2.

Select (CL) [Linear] or [Disperse] to open the LDEV ID input screen and input the LDEV ID. (In the example, [Disperse] is selected.)



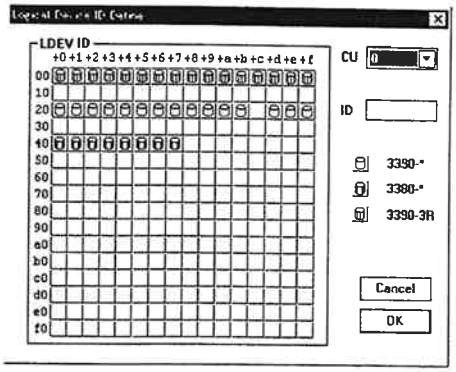
3.

Next, select only the parity group for which the 3380 system emulation type has been set.



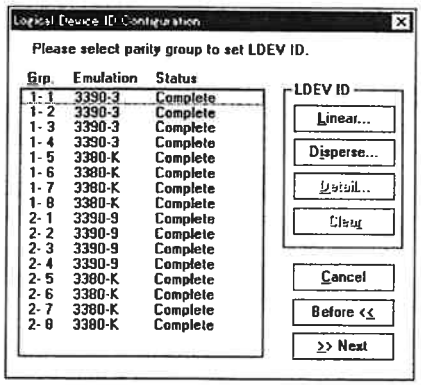
4.

Select (CL) [Linear...] or [Disperse...] to open the LDEV ID input screen and input the LDEV ID. In this case, take care not to make a coexistence occur in the block. In the example, 0:60 and the subsequent are unused blocks. Therefore, input 60.



5.

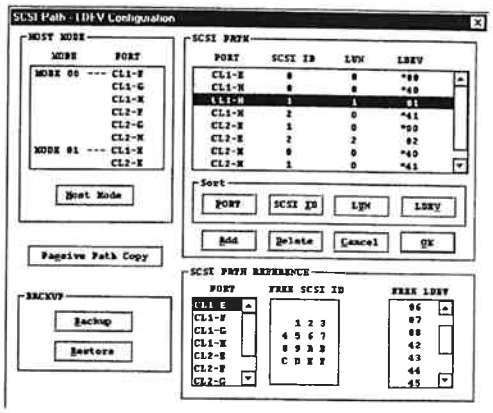
Setting is completed.



Needless to say, the setting sequence of steps 1 and 3 may reversed. (refer to 5.1.1.1)
If emulation types of different systems are selected at the same time, the guarding function works to prevent the setting by making the [Linear...] and [Dispense...] buttons unselectable.

6. <SVP displays "SCSI Path-LDEV Configuration" screen>

(1) 'SCSI Path-LDEV Configuration' window



(1.1) <SCSI PATH> section (top of the window)

Path display : Indicates the current status of definitions to be added, deleted and sorted. Each line represents a SCSI Path definition.

PORT : PORT No.
SCSI ID : SCSI ID
LUN : LUN No.
LDEV : LDEV ID

Character strings having the following meanings are displayed before LDEV ID:

' ' : Assignment to (one) Path
'*' : Assignment to (multiple) Paths

(Reference) An example of assigning multiple Paths includes assignment to alternate Paths.

[PORT] button : Sorts path items in the SCSI PATH display section in ascending order by PORT No. The sorting priority is given as PORT → SCSI ID → LUN → LDEV.
[SCSI ID] button : Sorts path items in the SCSI PATH display section in ascending order by SCSI ID. The sorting priority is given as SCSI ID → PORT → LUN → LDEV.
[LUN] button : Sorts path items in the SCSI PATH display section in ascending order by LUN No. The sorting priority is given as LUN → PORT → SCSI ID → LDEV.
[LDEV] button : Sorts path items in the SCSI PATH display section in ascending order by LDEV No. The sorting priority is given as LDEV → PORT → SCSI ID → LUN.
[ADD] [Delete] [Cancel] [OK] : Adds or deletes definitions, or quits the program. For more information, see later.

If no sort operation is performed, the default priority is given as PORT → SCSI ID → LUN → LDEV.

(1.2) <SCSI PATH REFERENCE> section (button of the window)
PORT display : Displays the ports installed.
FREE SCSI ID display : Displays the SCSI ID not used with the port selected in PORT display.
FREE LDEV display : Displays the LDEV ID of an undefined path (The requirement is OPEN-LDEV).

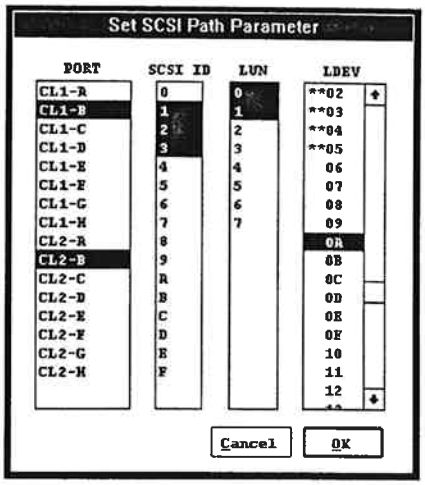
(1.3) <HOST MODE> section (left top of the window)
HOST MODE display : Displays the host identification data defined for the port installed.
[Host Mode] button : Defines the host identification data.

(1.4) <BACKUP> section (left bottom of the window)
[Backup] button : Output the displaying data to the backup file.
[Restore] button : Reads the data from the backup file and displays it.

(1.5) [Passive Path Copy] button :
Automatically create the alternative path from Cluster-1 to Cluster-2.

(2) Definition add operation

(2.1) 'Set SCSI Path Parameter' window



When the [ADD] button is selected (CL) in the 'SCSI Path-LDEV Configuration' window, the 'Set SCSI Path Parameter' window appears as shown to the right.

Definitions can be added in this window through the following operations:

1. Select PORT No. in the PORT display column (multiple selections allowed).
2. Select SCSI IDs in the SCSI ID display column (multiple selections allowed).
3. Select LUN No. in the LUN display column (multiple selections allowed).
4. Select LDEV IDs in the LDEV display column (multiple selections allowed).

[PORT] display column : Displays PORT No. installed.
[SCSI ID] display column : Displays SCSI IDs.
[LUN] display column : Displays LUNs.
[LDEV] display column : Displays LDEV ID to which OPEN-LDEV is assigned.

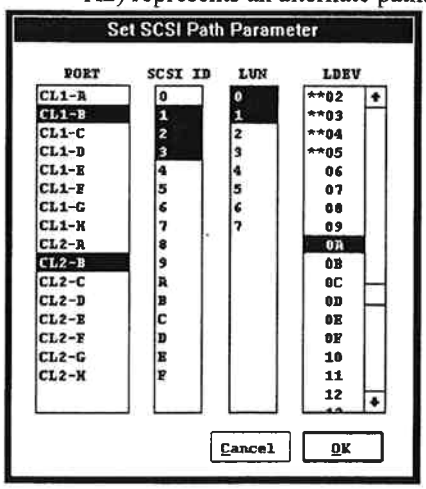
The character siring with the following meaning is displayed before LDEV ID:

' ' :Pass not assigned.
'*' :One path assigned.
'**' :Multiple paths assigned.

[Cancel] button : Cancels the selected content and returns to the 'SCSI Path-LDEV Configuration' window.
[OK] button : Sets path(s) according to the selected content and displays the 'Add SCSI Path' window for confirming an addition.

(2.1.1) Continuous assignment of LDEV IDs

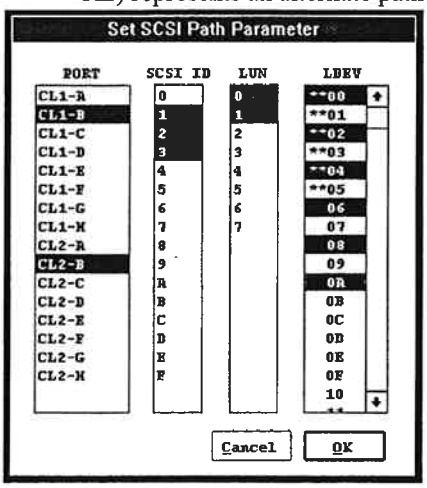
In the selected state shown below, the following paths are actually defined: The same symbol (such as X1 or X2) represents an alternate path.



	PORT	SCSI ID	LUN	LDEV
X1	CL1-B	1	0	0A
X2	CL1-B	1	1	0B
X3	CL1-B	2	0	0C
X4	CL1-B	2	1	0D
X5	CL1-B	3	0	0E
X6	CL1-B	3	1	0F
(X1)	CL2-B	1	0	0A
(X2)	CL2-B	1	1	0B
(X3)	CL2-B	2	0	0C
(X4)	CL2-B	2	1	0D
(X5)	CL2-B	3	0	0E
(X6)	CL2-B	3	1	0F

(2.1.2) Arbitrary assignment of LDEV IDs

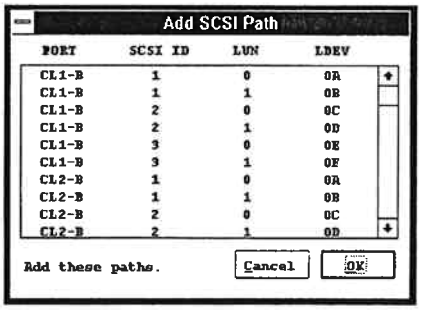
In the selected state shown below, the following paths are actually defined: The same symbol (such as X1 or X2) represents an alternate path



	PORT	SCSI ID	LUN	LDEV
X1	CL1-B	1	0	0A
X2	CL1-B	1	1	0B
X3	CL1-B	2	0	0C
X4	CL1-B	2	1	0D
X5	CL1-B	3	0	0E
X6	CL1-B	3	1	0F
(X1)	CL2-B	1	0	0A
(X2)	CL2-B	1	1	0B
(X3)	CL2-B	2	0	0C
(X4)	CL2-B	2	1	0D
(X5)	CL2-B	3	0	0E
(X6)	CL2-B	3	1	0F

(2.2) 'Add SCSI Path' window

When the [OK] button is selected (CL) in the 'Set SCSI Path Parameter' window, the definition add confirmation window appears as shown to the right.



Added path display column : Displays all the Paths set in the 'Set SCSI Path Parameter' window.

[Cancel] button : Returns to the 'Set SCSI Path Parameter' window without adding any paths displayed, and prompts the operator for modifying.

[OK] button : Adds the displayed path(s) to the 'SCSI Path-LDEV Configuration' window.

(2.3) Error message

If one of PORT, SCSI ID, LUN and LDEV is not selected, the message 'xxx is not Selected. Please select xxx.' is displayed to prompt operator for making a selection.

xxx --- PORT, SCSI ID, LUN, LDEV

If PORT and LDEV are the same as the existing definitions, the setting is considered to be the same even when SCSI ID and LUN are different. The error message shown right is displayed to prohibit double definition.

If PORT, SCSI ID and LUN are the same as the existing definitions, no access to different LDEVs is allowed. If this restriction is violated, the message shown to the right is displayed to indicate that those have been entered.

If LDEVs beginning with the selected LDEV ID cannot be selected by the given number in continuous assignment (overflow), the message shown to the right is displayed.

In arbitrary assignment of LDEVs, LDEVs need to be selected by the number of (SCSI IDs) x (LUNs). If LDEVs are not matched in number, the message shown to the right is displayed to prompt the operator to correct one of SCSI IDs, LUNs and LDEVs.

If the total of existing paths and newly added ones is over 1000 paths, the message shown to the right is displayed to prompt the operator to correct the number of newly added paths.

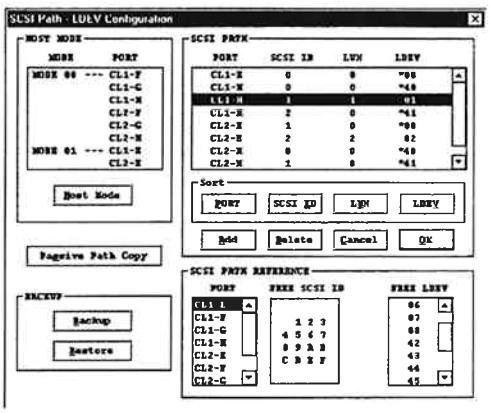
(3) Definition delete operation

(3.1) 'SCSI Path-LDEV Configuration' window

Definitions can be deleted in this window through the following operations:

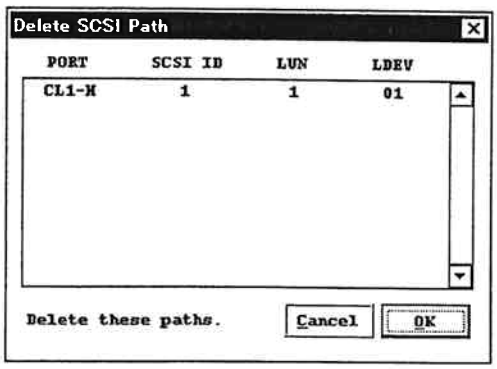
1. Select definitions to be deleted from the path display column (multiple selections allowed).
2. Select (CL) [Delete] button.

[Delete] button : Displays the 'Delete SCSI Path' window for confirming deletion of the selected definition.



(3.2) 'Delete SCSI Path' window

When the [Delete] button is selected (CL) in the 'SCSI Path LDEV Configuration' window, the definition delete confirmation window appears as shown to the right.



Deleted path display column : Displays all the paths set in the 'SCSI Path-LDEV Configuration' window.

[Cancel] button : Returns to the 'SCSI Path-LDEV Configuration' window without deleting any paths displayed, and prompts the operator for modifying.

[OK] button : Deletes the displayed path(s) from the 'SCSI Path-LDEV Configuration' window.

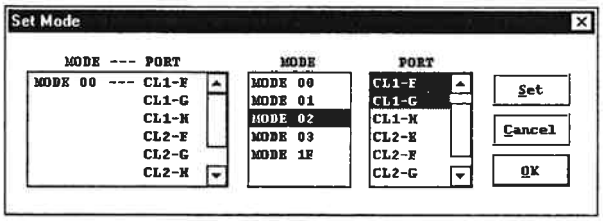
(3.3) Error message

If no definition is selected when the [Delete] button is selected (CL), the message shown to the right is displayed.

(4) Change of the definition of host identification data

(4-1) 'Set Mode' window

When the [Host Mode] is selected (CL) in the 'SCSI Path-LDEV Configuration' window, 'Set Mode' window is displayed as shown on the right.



MODE---PORT display : Displays the host identification data defined to the port as a list.

MODE display : Displays the data which can be defined as the host identification data. (multiple selection is not allowable.)

PORT display : Displays ports for the CHS installed. (multiple selection is allowable.)

[Set] button : Set the host identification data to the port according to the selection and displays the 'MODE xx' window for confirmation of the setting.

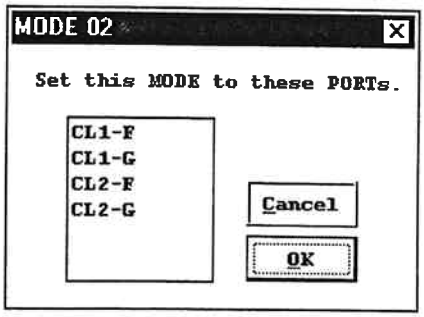
xx----- The value assigned to the selected host identification data.

[Cancel] button : Ignores all operations for change and returns the screen to the 'SCSI Path-LDEV Configuration' window.

[OK] button : Displays the settings in the <HOST MODE> section of the 'SCSI Path-LDEV Configuration' window.

(4-2) 'MODE xx' window

When [Set] is selected (CL) in the 'Set Mode' window, the setting confirmation screen as shown on the right is displayed.



Title of window : Displays the host identification data selected.
PORT display area : Displays the port selected.
[Cancel] button : Returns to the 'Set Mode' window without change of host identification data.
[OK] button : Assigns the host identification data displayed in the title of window to the port displayed in the PORT display area and returns to the 'Set Mode' window and updates the MODE---PORT display in the 'Set Mode' window.

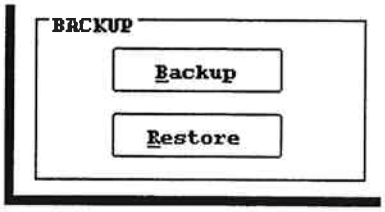
If you select mode 01, 02 or 03, SVP will set the same mode to the target port in Cluster-2.

---

(5) Backup/Restore function

(5.1) [Backup] button

Creates the backup file (one file) for the SCSI path definition data and host identification data which are displayed.
If the backup file has already existed, the confirmation message for overwriting is displayed.
This button can be selected at any time.



(5.2) [Restore] button

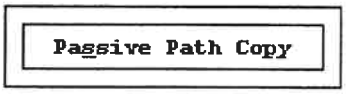
Reads the backup file and displays the data in the 'SCSI Path-LDEV Configuration' window. The read data which does not meet the installation of CHS or the setting of LDEV is not displayed.

---

(6) Passive path automatic definition

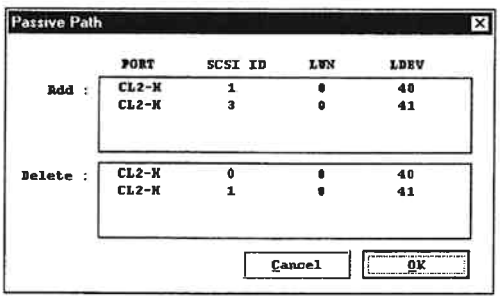
(6.1) [Passive Path Copy] button

If you select a path in Cluster-1, and select this button, SVP can create an alternative path to the same port in the Cluster-2 automatically.
After creating the path, please confirm it in "Passive Path" window.



(6.2) 'Passive Path' window

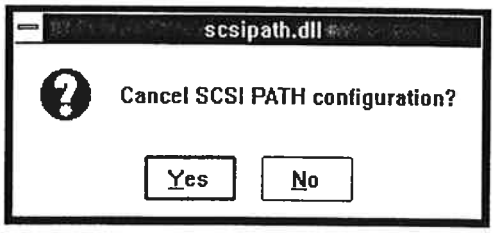
Add area : Display the paths which are created automatically.
Delete area : Display the other paths than the paths which are created automatically in the Cluster-2.
[OK] button : Add the path into Add area and delete the same path from Delete area.
[Cancel]button : Go back to the 'SCSI Path-LDEV configuration' window.



(7) Quitting SCSI path definition

To quit SCSI path definition, select (CL) the [Cancel] button in the 'SCSI Path-LDEV Configuration' window.

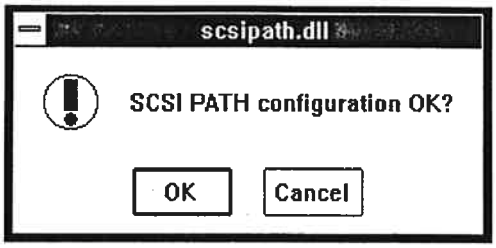
When the[Cancel] button is selected (CL), the message shown to the right is displayed. To quit SCSI path definition, select (CL) [Yes].



(8) Exit from SCSI path definition

To exit from SCSI path definition, select (CL) the [OK] button in the 'SCSI Path-LDEV Configuration' window.

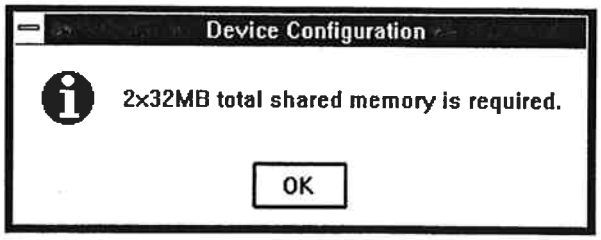
When the [OK] button is selected (CL), the message shown to the right is displayed. To exit from SCSI path definition, select (CL) [OK].



7.

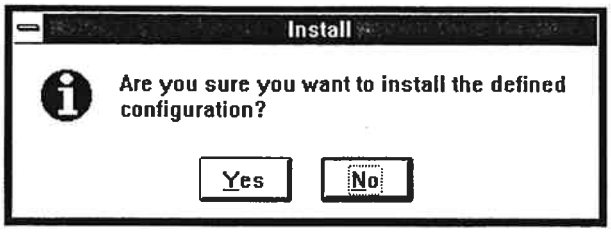
Select (CL) [OK] to the message
"2×xxxMB total shared memory is required".

When you select (CL) [OK],
'Channel Configuration' is automatically displayed.



8. <Include configuration information>

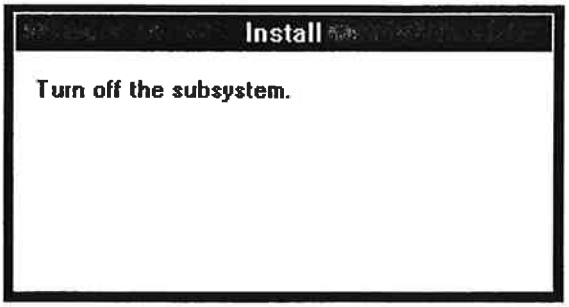
Select (CL) [Yes] in response to the confirmation message "Are you sure you want to install the defined configuration?".
"Wait..." is displayed, then "Turn off DKC subsystem" is displayed.
Selecting (CL) [No] suppresses the configuration inclusion processing and terminates the installation procedure.



9. <Power off DKC P/S>

Make sure that "Turn off the subsystem." is displayed and perform the power-off procedure from the DKC maintenance panel.

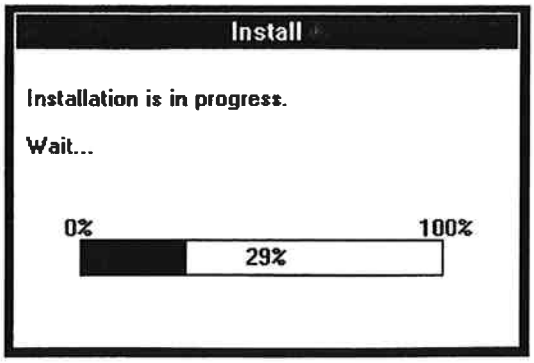
After a while "Installation is in progress." is displayed.



10.

This step causes the contents of the SVP HD to be loaded into SM and FM.

When this procedure is completed, message "Please insert config FD in FDD." is displayed.

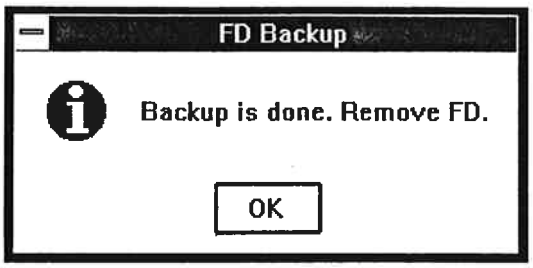


11.

Insert the configuration FD into FDD, select (CL) [OK].

12.

When this procedure is completed, message "Backup is done. Remove FD." is displayed.
Remove the FD, select (CL) [OK].



13.

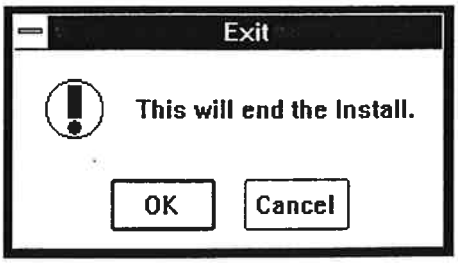
After making sure that DKC power is turned off, select (CL) [OK] in response to "Installation was finished.".
Select (CL) [OK] in response to "Please reboot PC.".
The initial Install screen is restored.

Note:SVP power will not turn off or reboot even when DKC is powered off.

14.

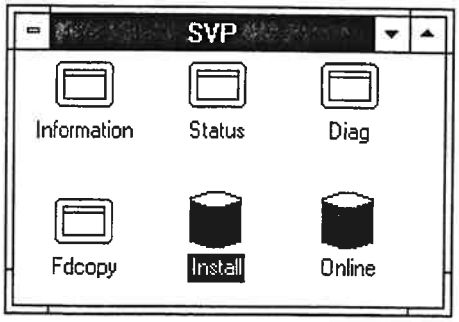
Close 'Install'.

Select (CL) [OK] in response to "This will end the Install.".
Exit Windows and reboot SVP.



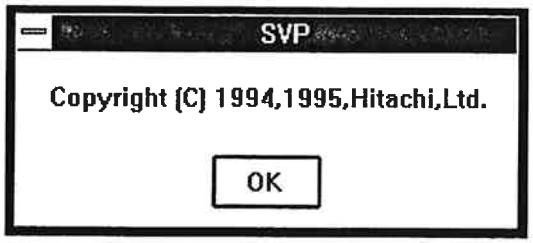
3.8.2 How to refer to configuration of RAID5(3D+1P)/RAID1

1. <Start [Install]>
   Select (DC) [Install] from 'SVP'.
   'SVP' is displayed.



2.
   Select (CL) [OK] from 'SVP'.

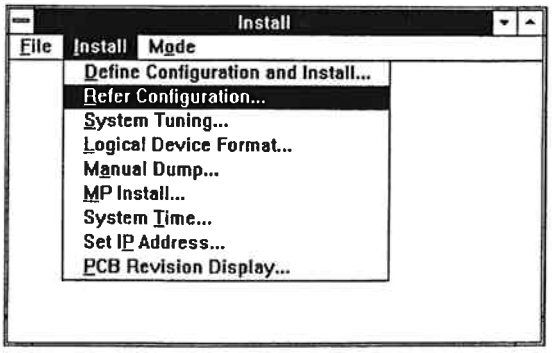
   'Install' is opened.



3. <Change SVP mode>
   Select (DR) [View] or [Modify] from [Mode] on 'Install'.

   The SVP is switched into the View or Modify mode.

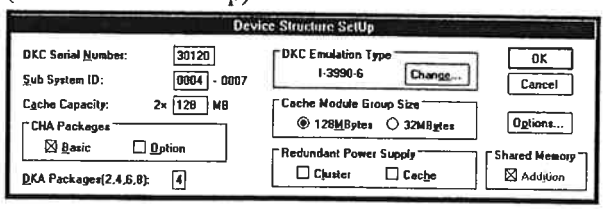
4. <Specify beginning of installation>
   Select (DR)[Refer Configuration...] from [Install] on 'Install'.



5. <Define configuration information>

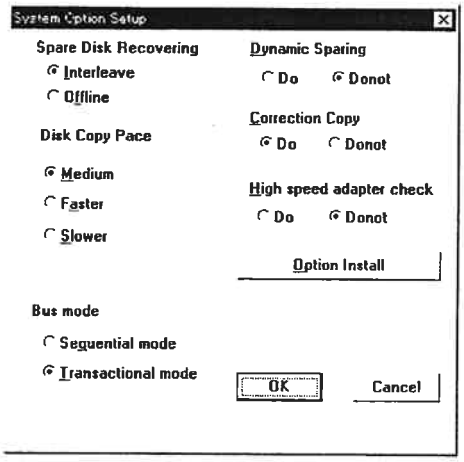
When you select (CL) [OK], 'Channel Configuration' is automatically displayed. Go to step 8.
This procedure finishes when you select (CL) [Cancel].
If [Options...] is selected (CL), 'System Option Setup' is automatically displayed. (Go to step 6)

(DKC Structure Setup)



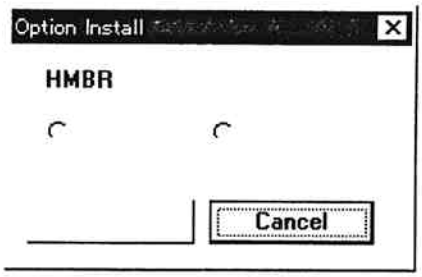
6.

Selecting (CL) [OK] or [Cancel] returns the screen to step 5.
If [Option Install] is selected (CL), 'Option Install' is displayed. (Go to step 7)



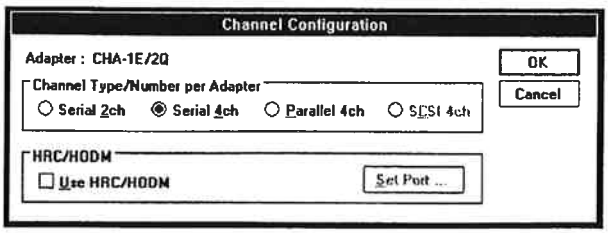
7.

Selecting (CL) [Cancel] returns the screen to step 6.



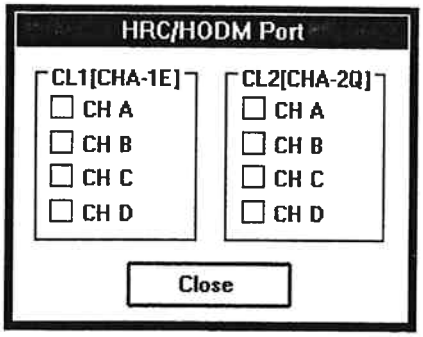
8.

When you select (CL) [Parallel 4ch] from this screen, the next 'Channel Configuration' is displayed.
When you select (CL) [Use HRC/HODM] from this screen.
The [Set Port...] button is enabled. Selecting (CL) [Set Port...] skip the screen to step 10.
Processing skip to step 11 if you select another item.
Selecting (CL) [Cancel] returns the screen to step 5.



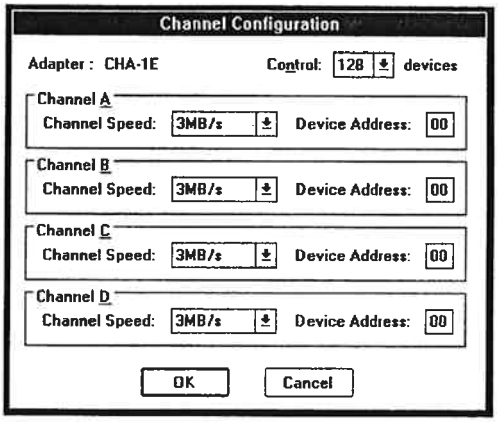
9. <Set RCP Port>

RCP port setting is displayed. Set HRC/HODM ports.
Then by selecting (CL) [Close] returns the screen to step 8.



10. <Set Parallel CH>

This procedure finishes when you select (CL) [OK], the next 'Drive Configuration' is displayed.
Selecting (CL) [Cancel] returns the screen to step 8.

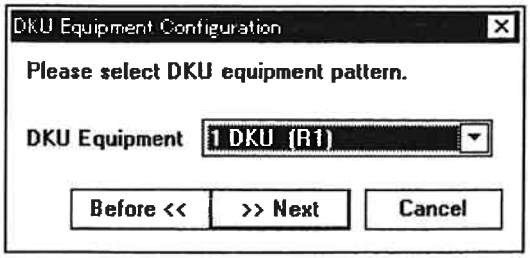


11.

When RAID5 (3D+1P) or RAID1 has been set, confirm the configuration information following the procedure shown below.

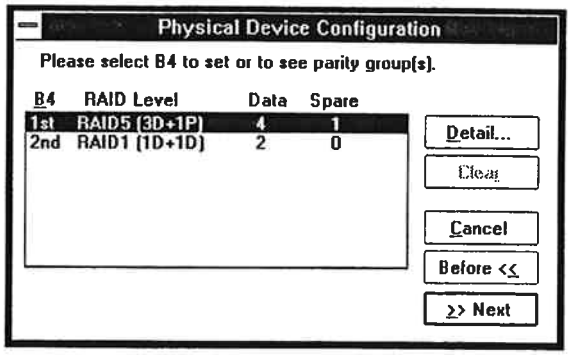
12. <Set DKU Equipment>

DKU Equipment pattern is displayed.
Select (CL) [>> Next].
This procedure is terminated by selecting (CL) [Cancel].



13. <Set Physical Device>

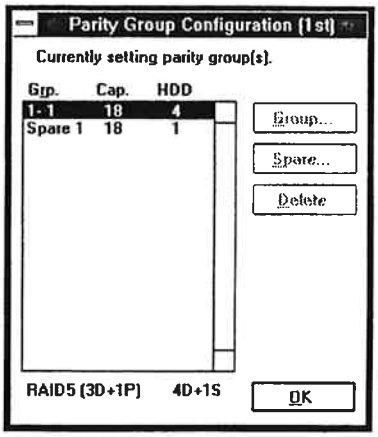
Physical device configuration is displayed.
Select (CL) the B4 and select (CL) [Detail...].
Go to 14.
Select (CL) [>> Next]. (Go to step 15)
This procedure is terminated by selecting (CL) [Cancel].



B4	Location
1st	HDU-R10, 11, 12, 13
2nd	HDU-R14, 15, 16, 17
3rd	HDU-L10, 11, 12, 13
4th	HDU-L14, 15, 16, 17
5th	HDU-R20, 21, 22, 23
6th	HDU-R24, 25, 26, 27
7th	HDU-L20, 21, 22, 23
8th	HDU-L24, 25, 26, 27

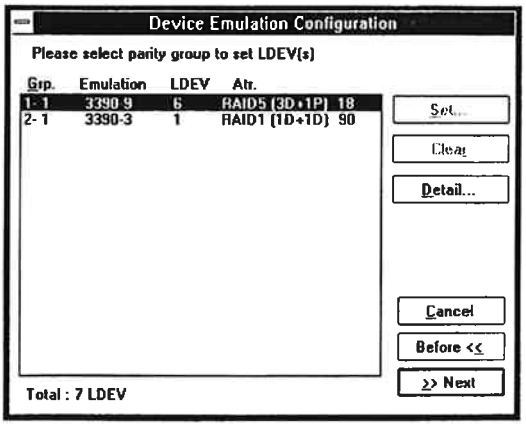
14.

Parity Group Configuration is displayed.
Select (CL) [OK]. Return to step 13.



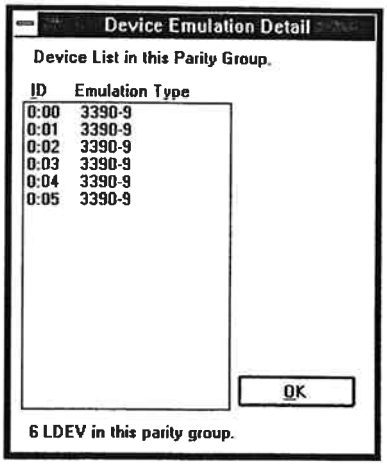
15. <Set Device Emulation>

Device Emulation Configuration is displayed.
Select (CL) parity group and select (CL) [Detail...]. (Go to step 16)
Select (CL) [>> Next] . (Go to step 17)
This procedure is terminated by selecting (CL) [Cancel].



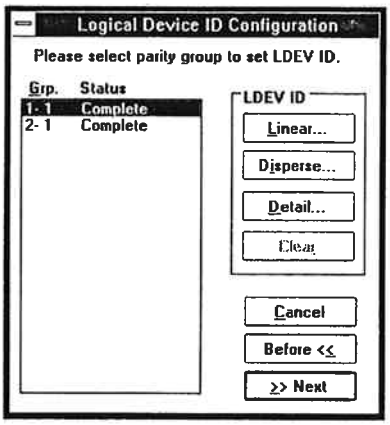
16.

Device Emulation Detail is displayed.
Select (CL) [OK]. Return to step 15.

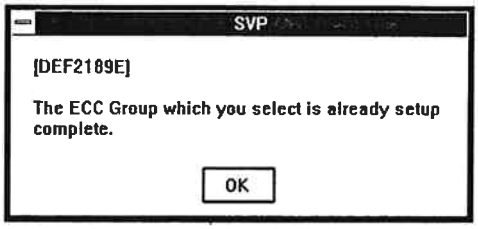


17. <Set Logical Device ID>

Logical Device ID Configuration is displayed.
Select (CL) parity group and select (CL) [Detail...]. (Go to step 18)
Select (CL) [>> Next]. (Go to step 20)
This procedure is terminated by selecting (CL) [Cancel].

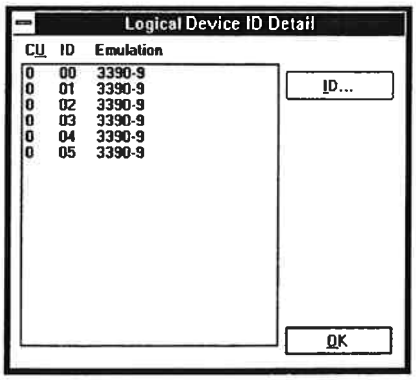


NOTICE
When you select [Linear...] or [Disperse...] ,a message "DEF2189E" is sometimes displayed. But it is not problem because it has already been setup. If you want to see more detail information about the LDEV ID, please refer to step 18 after selecting [Detail...].



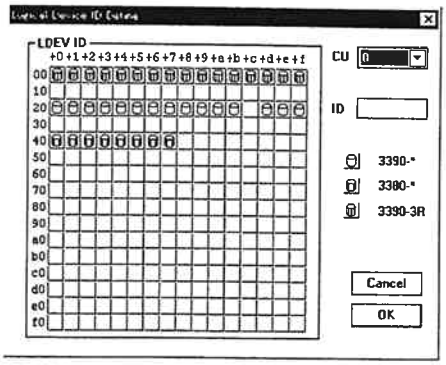
18.

Logical Device ID Detail is displayed.
Select (CL) [ID...]. (Go to step 19)
Select (CL) [OK]. Return to step 17.



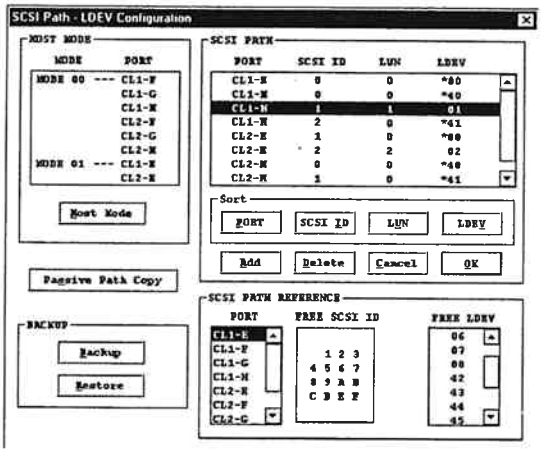
19.

Logical Device ID allocation is displayed.
Select (CL) [OK] or [Cancel]. Return to step 18.



20. <SVP displays "SCSI Path-LDEV Configuration" screen>

(1) 'SCSI Path-LDEV Configuration' window



(1.1) <SCSI PATH> section (top of the window)

Path display : Indicates the current status of definitions to be added, deleted and sorted. Each line represents a SCSI Path definition.

PORT : PORT No.
SCSI ID : SCSI ID
LUN : LUN No.
LDEV : LDEV ID

Character strings having the following meanings are displayed before LDEV ID:
' ' : Assignment to (one) Path
'*' : Assignment to (multiple) Paths

(Reference) An example of assigning multiple Paths includes assignment to alternate Paths.

[PORT] button : Sorts path items in the SCSI PATH display section in ascending order by PORT No. The sorting priority is given as PORT → SCSI ID → LUN → LDEV.
[SCSI ID] button : Sorts path items in the SCSI PATH display section in ascending order by SCSI ID. The sorting priority is given as SCSI ID → PORT → LUN → LDEV.
[LUN] button : Sorts path items in the SCSI PATH display section in ascending order by LUN No. The sorting priority is given as LUN → PORT → SCSI ID → LDEV.
[LDEV] button : Sorts path items in the SCSI PATH display section in ascending order by LDEV No. The sorting priority is given as LDEV → PORT → SCSI ID → LUN.

If no sort operation is performed, the default priority is given as PORT → SCSI ID → LUN → LDEV.

(1.2) <SCSI PATH REFERENCE> section (button of the window)
PORT display : Displays the ports installed.
FREE SCSI ID display : Displays the SCSI ID not used with the port selected in PORT display.
FREE LDEV display : Displays the LDEV ID of an undefined path (The requirement is OPEN-LDEV).

(1.3) <HOST MODE> section

PORT-MODE display : Displays the host mode to the installed ports.

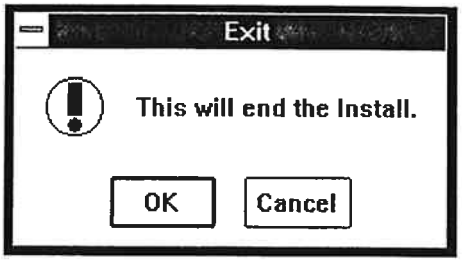
Selecting (CL) [Cancel] returns the screen to step 5 (INST05-220).

Selecting (CL) [OK], go to step 21 (INST05-270).

21.

Close 'Install'.

Select (CL) [OK] in response to "This will end the Install.".

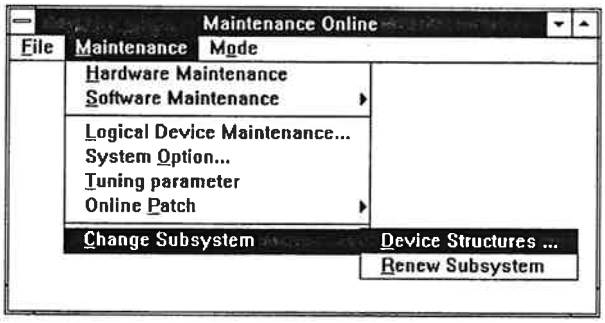


3.8.3 How to install and de-install RAID5 (3D+1P) / RAID1

NOTICE
There are some cases that the [SM Addition] message is displayed.
Please install shared memory at first.

1. <Start [Maintenance Online]>
   Select (DC) [Online] from 'SVP'.

2. <Start device structure setup screen>
   Select (DR) [Change Subsystem] from [Maintenance] on 'Maintenance Online', then select (DR) [Device Structure...].
   When the indicator shown in the "Reading the subsystem configuration data..." message reaches 100%, 'Device Structure Setup' is opened.



3. <Update device structure information>
   Fill the input items from 'Device Structure Setup' according to the configuration information worksheet.

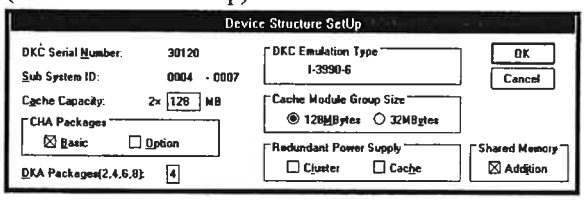
   Note: Selecting an incorrect input item in this step may block a part that is not subject to non-disruptive installation or de-installation.

   In case the RAID level is RAID 5, SVP displays the screen for RAID 5.

   In maintenance on-line, you can not change RAID level.

   * When the DKC Structure Setup screen is displayed, go to step 4 (INST05-290).

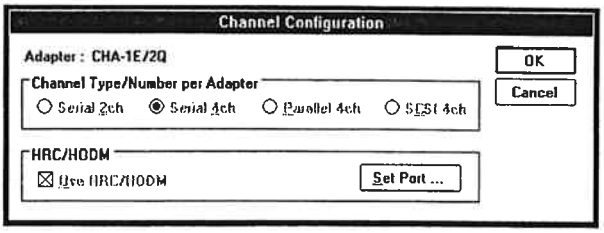
(DKC Structure Setup)



4.

Fill the input items from 'Channel Configuration' according to the configuration information worksheet.
Repeat the process for each installed CHA.

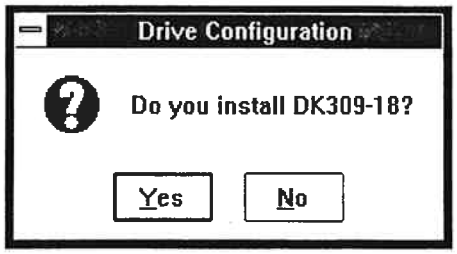
Note: Selecting an incorrect input item in this step may block a part that is not subject to non- disruptive installation or de-installation.



After making sure that all input items are correct, select (CL) [OK].

8.

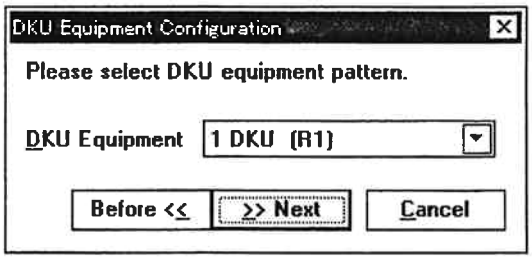
When RAID5 (3D+1P) or RAID1 has not been set, a message asking for confirmation is displayed. Select (CL) [Yes], go to step 9



If you select (CL) [No], you could not install DK309-18 or de-install.
There are some cases that this message is not displayed.
If the message is not appeared : Please go to step 9.

9. <Set DKU Equipment>

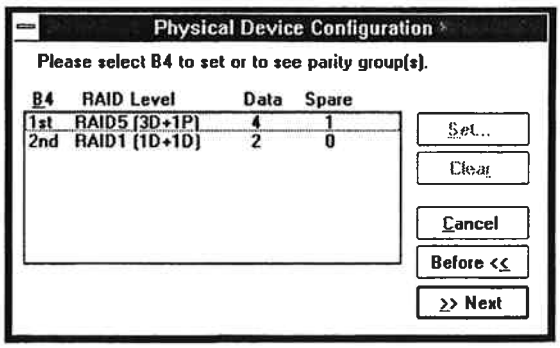
Define the DKU equipment pattern in the 'DKU Equipment'.
After setting up, select (CL) [>>Next]. (Go to step 10)
Case of de-install: Please go to step 16.



10. <Change Drive Configuration Information>

Define drive configuration according to the 'Physical Device Configuration' screen displaying the mounted B4 based on the result of setting of DKU mount pattern.
Detailed procedure is shown below.

- Select (CL) the item and select (CL) [Set...]. Go to step 11 through 12.
- Selecting (CL) [Clear...] after selecting (CL) the item clears the B4 setting.

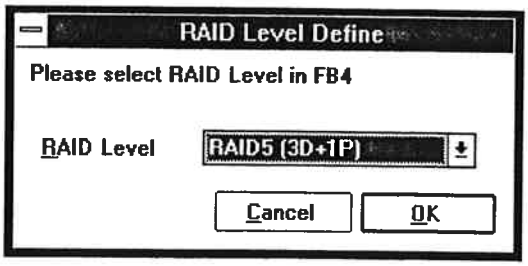


After setting up all items, select (CL) [>>Next], go to step 14-1
Selecting (CL) [Before<<] returns you to the previous screen.

B4	Location
1st	HDU-R10, 11, 12, 13
2nd	HDU-R14, 15, 16, 17
3rd	HDU-L10, 11, 12, 13
4th	HDU-L14, 15, 16, 17
5th	HDU-R20, 21, 22, 23
6th	HDU-R24, 25, 26, 27
7th	HDU-L20, 21, 22, 23
8th	HDU-L24, 25, 26, 27

11. <Define RAID level>

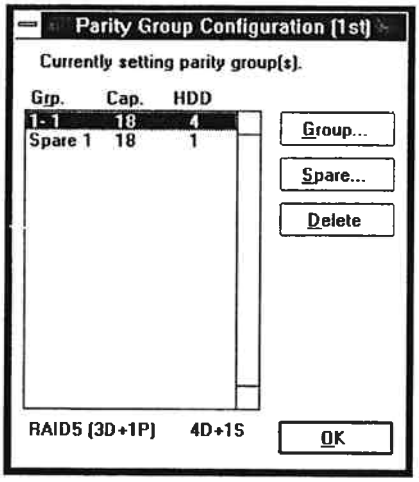
In case of this window is displayed, define RAID level of the B4 in the 'RAID Level Define'.
After setting up, select (CL) [OK].

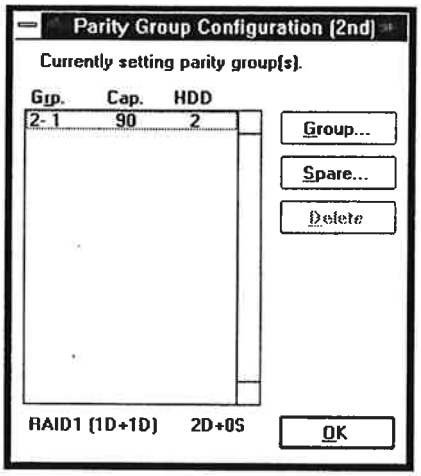


12. <Define Parity Group>

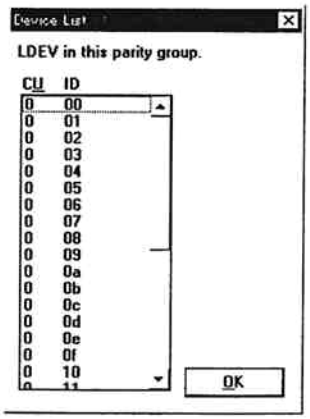
- To define Parity Group, select (CL) [Group...] in the 'Parity Group Configuration' dialog box. See step 13.
- To define Spare, select (CL) [Spare...] in the 'Parity Group Configuration' dialog box. See step 13-1.
- To delete an item, select an item to be deleted and select (CL) [Delete] in the 'Parity Group Configuration' dialog box.

After setting up all items, select (CL) [OK]. Return to step 10.



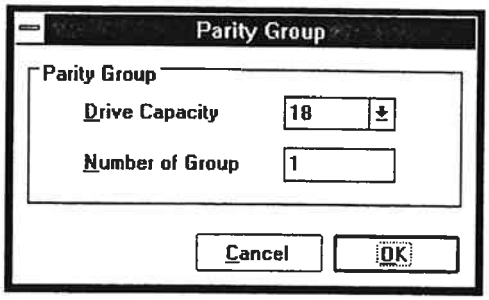


- To display LDEV ID in Parity group, select an item to be displayed and select (DC) this item on list box. 'Device List' dialog box will appear.



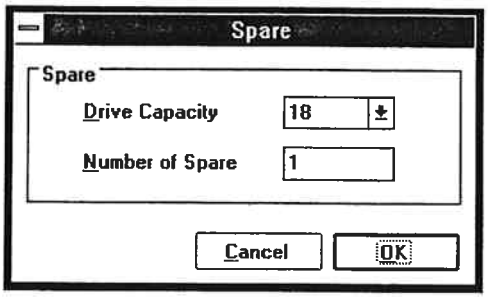
13.

Define the drive capacity and the number of parity groups in the 'Parity Group' dialog box.
Then select (CL) [OK]. Return to step 12.



13-1

Define the drive capacity and the number of spare drives in the 'Spare' dialog box.
Then select (CL) [OK]. Return to step 12.

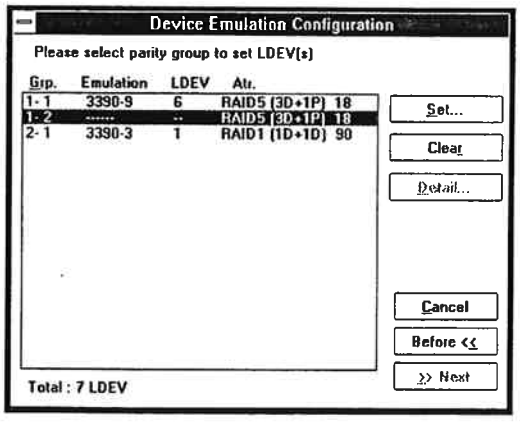


14. <Define Device Emulation>

After setting up all items for definition of Device Emulation, select (CL) [>>Next]. (Go to step 15)
Selecting (CL) [Before<<] returns you to the previous screen.

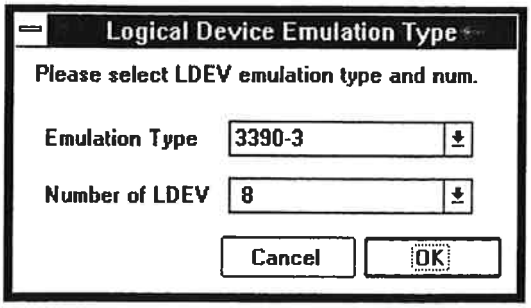
14-1

In case of defining Device Emulation:
Select (CL) device and select (CL) [Set...]. (Go to step 14-1-1)



14-1-1

After setting up all items in the 'Logical Device Emulation Type' dialog box, select (CL) [OK].
Selecting (CL) [Cancel] returns you to step 14.

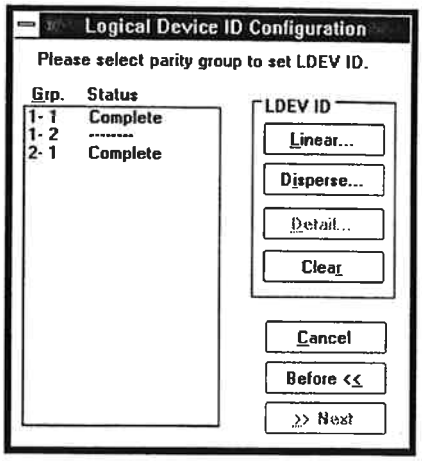


14-2

In case of detailed display:
Select (CL) device and select (CL) [Detail...].
The detailed information is displayed, go to step 15-2.

15 <Define LDEV ID>

15-1 Definition Screen for LDEV ID



Select (CL) the parity group to be defined and select (CL) a function from [LDEV ID] list box.

[Linear...]: LDEV ID is assigned to LDEV in the order of parity group. See step 15-3.

[Disperse...]: LDEV is assigned discretely in the order of parity group. See step 15-3.

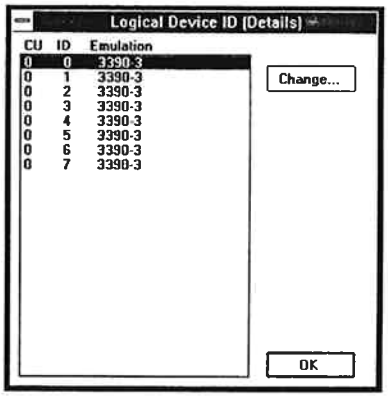
[Detail...]: A screen to define LDEV in detail is displayed. See step 15-2. (When plural groups are selected (CL), it is invalid.)

[Clear]: Select (CL) [Clear] to delete.

- '-----' is displayed in CU area and ID area for the parity group to which LDEV ID is not assigned.
- 'xxxxx' is displayed in ID area for the parity group to which any LDEV ID is not assigned.

After setting up all items, select (CL) [>>Next]. (Refer to step 15-4)

15-2 Detailed Definition Screen for LDEV ID



LDEV ID is defined in detail for each LDEV in the parity group.

Select (CL) [LDEV] from the list box and select (CL) [Change...].

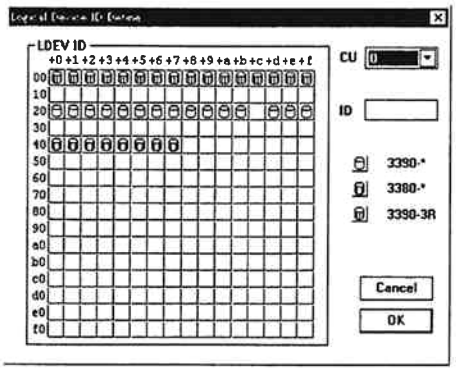
The screen for LDEV ID input is displayed.

There is a case that dummy replacement of CACHE is done.

After executing dummy replacement, please set from the first step.

Please refer to REP02-02-210.

15-3 Input LDEV ID



Select CU ID in CU combo box.

The status of usage of ID in the CU is displayed in the LDEV ID panel.

White disk of panel: not used

Patterned disk of panel: using

Input LDEV ID you want to set or head LDEV ID in the ID Edit box.

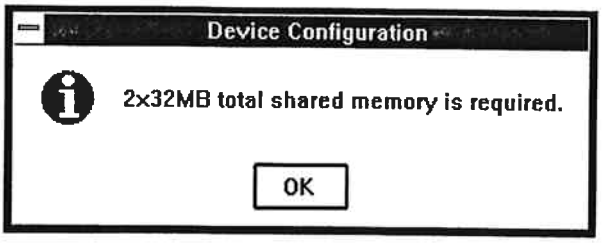
After setting, select (CL) [OK]. Return to step 15.

NOTICE

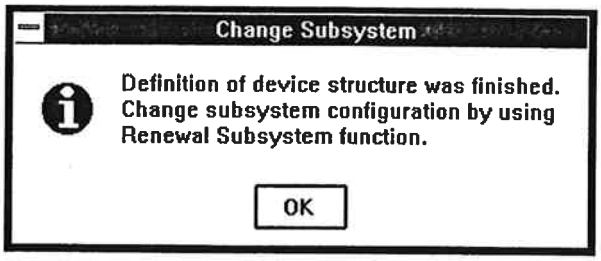
Dummy replacement of Cache PCB may be done (Refer to REP01-90). In this case, try to install or de-install operation again (go to step 1) after the replacement.

15-4

Select (CL) [OK] to the message
"2×xxxMB total shared memory is required.".



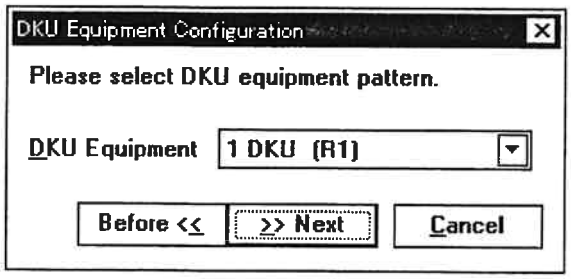
Select (CL) [OK] to the message
"Definition of device structure was finished. Change subsystem configuration by using Renewal Subsystem function.". Go to step 19.



"Case of de-install"

16. <Set DKU Equipment>

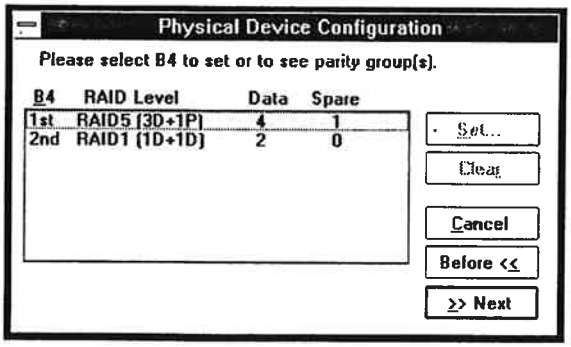
Set the DKU equipment pattern in the 'DKU Equipment Configuration'.
After setting up, select (CL) [>>Next].



17. <Change Drive Configuration Information>

Set drive configuration according to the 'Physical Device Configuration' screen displaying the mounted B4 based on the result of setting of DKU mount pattern.
Detailed procedure is shown below.

- Select (CL) the item and select (CL) [Set...]. Go to step 18.
- Selecting (CL) [Clear...] after selecting (CL) the item clears the B4 setting.

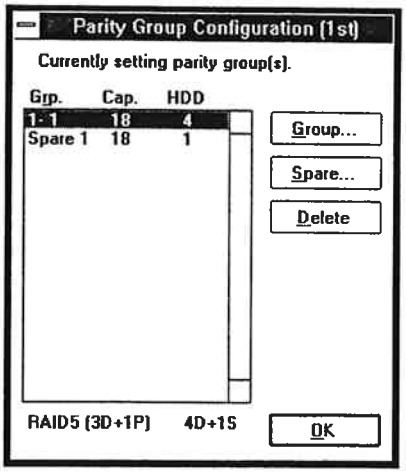


After setting up all items, select (CL) [>>Next].(Go to step 15-4)
Selecting (CL) [Before<<] returns you to the previous screen.

B4	Location
1st	HDU-R10, 11, 12, 13
2nd	HDU-R14, 15, 16, 17
3rd	HDU-L10, 11, 12, 13
4th	HDU-L14, 15, 16, 17
5th	HDU-R20, 21, 22, 23
6th	HDU-R24, 25, 26, 27
7th	HDU-L20, 21, 22, 23
8th	HDU-L24, 25, 26, 27

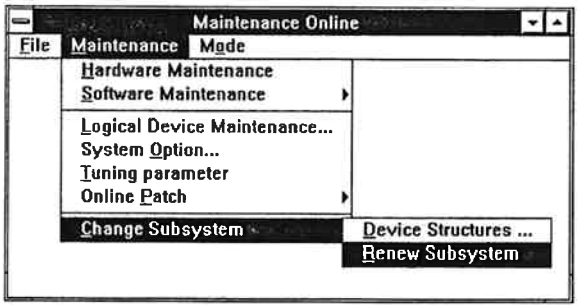
18. <Define Parity Group>

Select (CL) the group to be de-installed and select (CL) [Delete] in the 'Parity Group Configuration' dialog box.
After setting, select (CL) [OK]. Return to step 17.



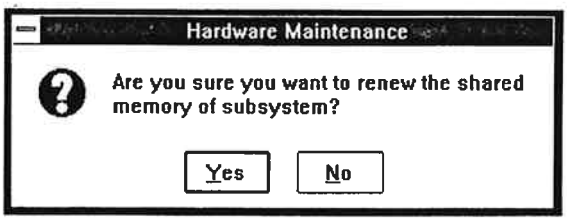
19.

Select (DR) [Change Subsystem] from [Maintenance] on 'Maintenance Online', then select (DR) [Renew Subsystem].

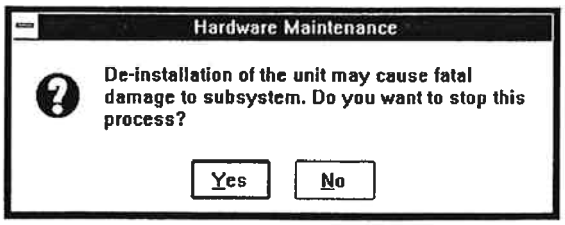


20. <Renew Subsystem Confirmation>

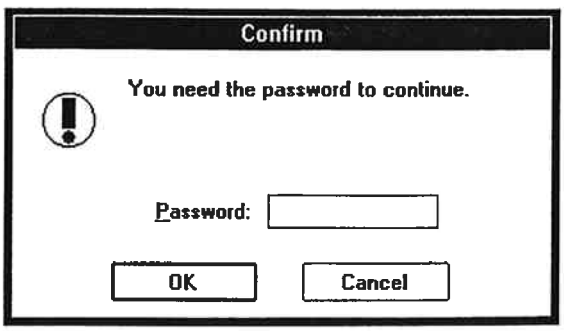
Select (CL) [Yes] in response to "Are you sure you want to renew the shared memory of subsystem?".



Select (CL) [Yes] in response to "De-installation of the unit may cause fatal damage to subsystem. Do you want to stop this process?".



Enter the password and select (CL) [OK].
If [Cancel] is selected (CL), terminate the de-install procedure.



21. <Follow the applicable Install or Deinstall procedure>

The steps that are not subject to installation (de-installation) are automatically skipped. See the page shown below for the subsequent SVP procedures.

[In case of cache memory]

Installation	: Go to INST05-235 (c).
De-installation	: Go to INST05-315 (c).

[In case of DKC additional power supplies and CL redundant power supplies Installation/De-Installation]

Non-Disruptive Installation	: Go to INST02-20A step (3)-4.
Non-Disruptive De-Installation	: Go to INST02-32 step (9)-2.
Disruptive Installation	: Go to INST02-41 step (13)-2.
Disruptive De-Installation	: Go to INST02-51 step (7)-2.

[In case of CHAs Installation/De-Installation]

Non-Disruptive Installation	: Go to INST02-20A step (4)-3.
Non-Disruptive De-Installation	: Go to INST02-32 step (8)-2.
Disruptive Installation	: Go to INST02-41 step (14)-2.
Disruptive De-Installation	: Go to INST02-50 step (6)-2.

[In case of Cache redundant power supply Installation/De-Installation]

Non-Disruptive Installation	: Go to INST02-21 step (8)-2.
Non-Disruptive De-Installation	: Go to INST02-31 step (6)-2.
Disruptive Installation	: Go to INST02-41 step (16)-2.
Disruptive De-Installation	: Go to INST02-50 step (4)-2.

[In case of DKAs Installation/De-Installation]

Non-Disruptive Installation	: Go to INST02-21 step (11)-5.
Non-Disruptive De-Installation	: Go to INST02-30 step (3)-2.
Disruptive Installation	: Go to INST02-41 step (17)-2.
Disruptive De-Installation	: Go to INST02-50 step (3)-2.

[In case of HDD canisters Installation/De-Installation]

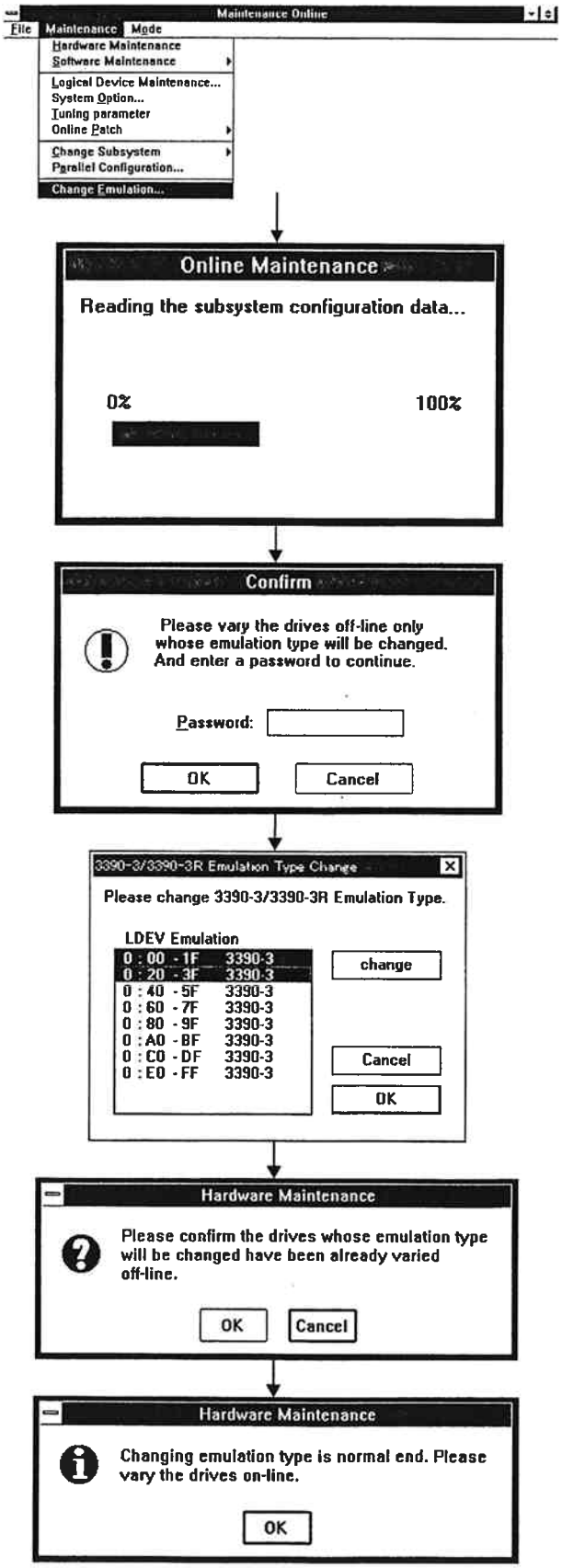
Non-Disruptive Installation	: Go to INST02-22 step (12)-3.
Non-Disruptive De-Installation	: Go to INST02-30 step (2)-2.
Disruptive Installation	: Go to INST02-41 step (18)-2.
Disruptive De-Installation	: Go to INST02-50 step (2)-2.

3.8.4 Operation procedure for emulation change when installing RAID5(3D+1P)/RAID1

Perform the following procedure to change the emulation type between 3390-3 and 3390-3R.

In other cases, de-install HDD Canister according to the procedure described in installation/de-installation section and change the emulation type when installation is performed.

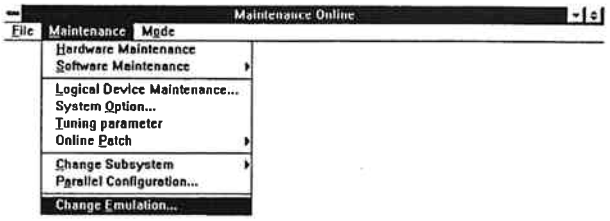
Over view



1. <Start [Maintenance Online]>
   Select (DC) [Online] from 'SVP'.

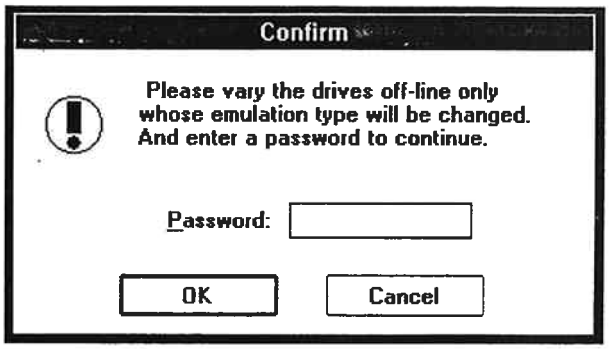
2. <Start Change Emulation type>
   Select (DR) [Change Subsystem] from [Maintenance] on 'Maintenance Online', then select (DR) [Change Emulation...] .

   'Confirm' is opened.



3.
   Enter the password and select (CL) [OK].

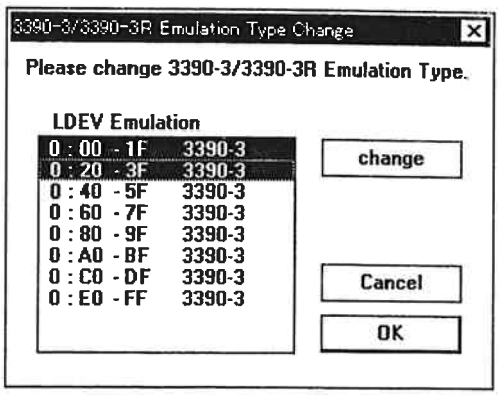
   If [Cancel] is selected(CL), terminate the Change Emulation procedure.
   'Maintenance Online' is automatically displayed next.



NOTICE
This is a special (exceptional) operation that can cause a serious failure such as a system down or a data loss if a wrong drive for which the emulation type is to be changed is selected, and requires an input of a password. Ask the technical support center about the appropriateness of the operation, and input the password after getting an approval of executing the operation.

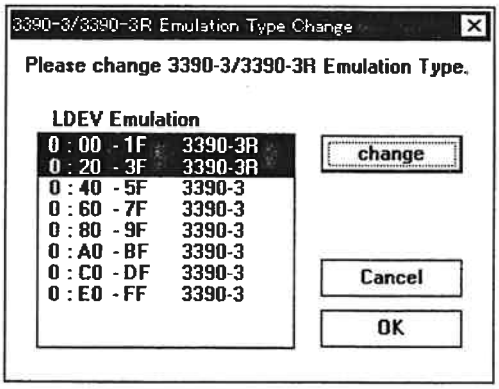
4.

Select 32 boundaries of the LDEV of the 3390-3 or 3390-3R from the emulation types displayed in the list box. If an emulation type other than the 3390-3 and 3390-3R is selected, the [change] button is invalidated.
Select (CL) the [change] button.



5.

The DKU emulation type in the selected LDEV boundary is changed in the way that the 3390-3 is changed to the 3390-3R, and vise versa.
Determine the operation by selecting (CL) [OK].



6.

End of the exchange emulation type.
Check that the emulation type of the recently exchange emulation type by using MAINTENANCE function.